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☆3185

- 3626 - Around Kuleha - Gramineae - June 22
 3627 - " " - Small tree, only 2 - 25
 3628 - " " - R. Tree - May 25th
 3629 - " " - Ocotea, 5 ft. R.

Panama continued

3694. *Milleria quinqueflora* L. Compositae

3695 Compositae

3696. *Cayaponia paeppegii* Cogn. Cucurbitaceae

3697 *Conostegia speciosa* Naud Melastomataceae

3698. *Cratogeomys* Euphorbiaceae

3699. *Psychotria hebeclada* D.C. ? Rubiaceae

3700. *Bunchonia cornifolia* HBK. Malpighiaceae

3701. ~~*Curatella*~~ *Anguria warszewiczii* Hook. f. Cucurbitaceae

June 25th 1911.

Panama

Around Gamboa along roads. A weed \pm 1m. high, rays golden yellow, about 3 on one side.

Around Gamboa, a weed in waste places.

Around Gamboa. A vine, climbing on bushes. σ fl. rather large, yellowish white, axillary. ϕ fl. small, same color, in racemes.

Around Gamboa in bushes. A shrub. Calyx hairy & purple externally. Corolla pale pink, rotacea.

Around Gamboa, in bush. A small tree, with several stems from base. 3-5m. high.

Around Gamboa, a low, suffrutescent shrub. Fl. white.

Around Gamboa, a shrub or small tree. Fl. rather small, yellow. Fr. ovoid, apiculate, yellow at maturity.

Around Gamboa, a vine with red flowers.

3702. *Cornutia grandifolia* (L.f.) Verbenaceae
Schauer

3703. *Godmania macrocarpa* Hemsl. Bignoniaceae

3704. *Cupania cinerea* Poepp. Sapindaceae

3705. *Smilax* Smilacaceae

3706. *Banisteria Luntzei* Small Malpighiaceae

3707. *Alibertia edulis* A. Rich. Rubiaceae

3708. *Cordia sericicalyx* A. DC. Boraginaceae

3709. *Piper fatioanum* C. DC. Piperaceae

June 25th 1911

Around Gamboa. A shrub or small tree, with purple blue fl. in pyramidal racemes.

Around Gamboa. A small tree, 6-8^m high. Fl. yellow, with brown lines inside.

Around Gamboa. A small tree, 6-8^m high. Fl. white, in dense bunches, few opening at a time.

Around Gamboa, climbing on trees, Fl. greenish

Around Gamboa, a vine, climbing on trees. Fl. golden yellow.

Around Gamboa, a shrub or a small tree. Fl. white, stellate.

Around Gamboa, a small tree. Fl. white

Around Gamboa. An erect shrub, \pm 1.50 high.

3710. *Psychotria hebeclada* J.C. Rubiaceae

3711. *Gonzalagunia panamensis* (Cav.) Schum. Rubiaceae

3712 Euphorbiaceae

3713. *Lapium* Euphorbiaceae

3714. *Panicum geminatum* Persk. Graminae

3715. *Cenchrus echinatus* L. Graminae

3716. *Cenchrus viridis* Spreng. Graminae

3717. *Dactyloctenium aegyptium* (L.) Richt. Graminae

June 25, 1911

Around Gamboa. A suffrutescent shrub, 0.50-1.50 high. Fl. pink, or pinkish white. An = 3699?

Around Gamboa. A shrub. Fl. white

Around Gamboa. Herbaceous, urticant. Fl. white.

June 27, 1911

Around Empire, in flooded ditches.

Around Empire, in waste places. (~~Fl. white~~)

Around Empire in waste places. Styles white.

Around Empire, in waste places. 2-5 spikes.

June 27, 1911.

8
3718. *Panicum fasciculatum* Sw.

Graminae

Around Empire, in waste places. Spikes dark purple.

3719. *Chaetochloa imberbis* Scribn.

Graminae

Around Empire, in waste places.

3720. *Echinochloa colinum* Link.

Graminae

Around Empire, in waste places.

3721. *Chloris elegans* H. B. K.

Graminae

Around Empire, in waste places.

3722. *Paspalum paniculatum* L.

Graminae

Around Empire, in waste places.

3723. *Echinochloa colinum* Link

Graminae

Around Empire, in waste places

3724. *Paspalum virgatum* L.

Graminae

Around Empire, in damp places.

3725. *Paspalum plicatulum* Moench

Graminae

Around Empire, along roads.

June

3726. *Panicum megistum* Schult.

Graminae

3727. *Homolepis aturensis* Chase

Graminae

3728

Euphorbiaceae

3729. *Cedrela fissilis* Vell.

Cedro

Meliaceae

3730. *Astronium graveolens* Jacq.
Guaia - Zorro3731. *Moplocium armatum* (Miq.) Pittier

Curral?

Mistecae

3732. *Sideroxylon*

Nispero

Sapotaceae

27, 1911

Around Empire, in waste, rather damp places.

Around Empire, on talus and slopes.

Around Empire, in waste places.

May 25, 1911.

Around Alhajiela. A middle sized tree with divaricate branching, short trunk and flat crown. This individual cannot be considered as typical.

Around Alhajiela. Middle sized tree, with straight trunk, smooth bark.

Around Alhajiela. No data.

Around Alhajiela. A large tree, reaching over 60m., with a straight trunk and elongate crown. Fruits the size of a "mirabelle" plum, and the same color.

3733 *Banisteria Luntzei* Small Malpighiaceae

3734 *Scleria melaleuca* Rehb.

Cyperaceae

3735

Bignoniaceae

3736 *Echites microcalyx* A. DC. Apocynaceae

3737 *Piper marginatum* Jacq.

Piperaceae

3738 *Banara guianensis* Aubl. Rhamnaceae

3739 *Tabernaemontana grandiflora* Jacq.

Apocynaceae

3740

Commelinaceae

June 29th 1911.

Cerro Gordo. A vine = n° 3706.

Cerro Gordo, in bushes.

Cerro Gordo. Climbing on bushes.

Cerro Gordo. A vine. Limb of corolla with a brownish red star in the center and sulphur yellow tips.

Cerro Gordo. A bush, 1m. - 1m. 50 high. Leaves and spikes odorous, good aromatic smelling.

Cerro Gordo. A small tree, 6-8^m high, ramified almost from bottom. Fl. white.

Cerro Gordo. A shrub. Fl. deep yellow.

Cerro Gordo. A shrubby, herbaceous plant, 1-1.20 high. Stem single, straight, with flat crown at top. Fl. purple.

3741. *Anemopaegma orbiculatum* DC.

Bignoniaceae

Ancon Hospital Grounds. June 30th. Col. Chas. F. Mesm.3742. *Axonopus compressus* Beauv.

Graminae

July 1st 1911.

Slopes around Culebra

3743. *Panicum fasciculatum* Sw.

Graminae

Between Las Cascadas & Bas Obispo, along railroad. A tall grass.

3744. *Chaetochloa amplifolia*

Graminae

Between Las Cascadas and Bas Obispo, along railroad. a tall grass.

3745. *Panicum saccharoides*

Graminae

Bas Obispo, on railroad steep talus.

3746. *Inga spectabilis* Willd

Leguminosae

Bas Obispo, along road; a tree, low branched with rounded crown.

3747. *Euphea balsamifera* C. & S.

Lythraceae

Bas Obispo, in waste places.

3748. *Anthurium lacunense* Engl.

Araceae

Around Frijoles, in inundated forest. Epiphytic

3749. *Peperomia*

Piperaceae

3750. *Rhedia acuminata* (R. & P.) Guttiferae
Madroño Pl. V. R.

3751

Capparidaceae

3752. *Malouetia panamensis* Harms & Muell. Arg. Apocynaceae3753. *Philodendron panamense* Krause

Araceae

3754. *Dieffenbachia Cestledtii* Schott.

Araceae

3755. *Philodendron tripartitum* (Jacq.) Schott. Araceae3756. *Prestonia macrocarpa* Kunze ApocynaceaeJuly 1st 1911.

Around Frijoles, b. Z. Epiphytic.

Around Frijoles, b. Z. in inundated forest. A pyramidal tree, with
straight trunk, smooth gray bark and yellow ^{verrucose} fruits. Tree 10-12m. high.

Around Frijoles, in ditches. Fl. small, greenish purple.

Around Frijoles, in forest. A small, lactiferous tree. Fl. small, greenish
white.

Around Frijoles, in forest. Epiphytic.

Around Frijoles, in inundated forest. Terrestrial.

Around Frijoles, in forest. Epiphytic.

Around Frijoles, in bushes. A vine. Flowers purplish green, with
a yellow star at throat.

Filix

July 1st 1911.
Around Frijoles, in bushes.

3758. *Xanthosoma helloborifolium* (Jacq.) Schott.

Araceae

Around Frijoles, in bushes.

3759. *Olyra arundinacea*

Graminae

Around Frijoles, climbing on bushes.

3759^b. *Peperomia rotundifolia* H.B.K. f. *subglabrata* E.D. Piperaceae3760. *Eleusine indica* Gaertn.

Graminae

Around Frijoles, along railroad.

3761. *Lyntherisma sanguinalis* Soler

Graminae

Around Frijoles, along railroad.

July 2^d 1911.

3762. *Antheperora hermaphrodita* Ktze

Graminae

Around Gamboa, in waste places.

3763. *Meibomia axillaris* (L.) Ktze.

Legumin.

Around Gamboa, in pastures. Fl. deep purple.

3764. *Phyllanthus*

Euphorbiaceae

Around Gamboa, along trail.

3765 *Bunchosia coriifolia* HBK. Malvaceae

July 1st 1911.

Around Gambia. A small tree. Fl. yellow. Fr. orange yellow.

3766. *Dieffenbachia Pittieri* Engl. & Krause Araceae

On trail from Gambia to Bruce.

3767 *Prestonia obovata* Staudl. Apocynaceae

On trail from Gambia to Bruce. A milky vine. Lobs of corolla yellow with purplish throat.

3768. *Heliotropium ^{inundatum Sw.} ~~parviflorum L.~~*

Boraginaceae

On trail from Gambia to Bruce. Fl. white.

3769. *Meibomia adscendens* (Sw.) Ktze

Leguminosae

On trail from Gambia to Bruce. Fl. pale pink

3770. *Meibomia supina* (Sw.) Britton

Leguminosae

On trail from Gambia to Bruce. Fl. pale pink.

3771

Euphorbiaceae

On trail from Gambia to Bruce.

3772. *Physalis pubescens* L.

Solanaceae

On trail from Gambia to Bruce.

July 2^d 1911.

from to brues
long trail to Gambia. A low bush.

3773. *Croton*

Euphorbiaceae

3774. *Xanthosoma pilosum* C. Koch.

Araceae

long trail to Gambia from brues

3775

Euphorbiaceae

long trail to Gambia from brues. A climbing vine. fl. green.

3776

Sterculiaceae

long trail to Gambia from brues. Stems 1.50 to 2.50^m high.
bright yellow. hairs long, brownish. Leaves brownish hairy

3777. *Helicteres guazumaefolia* H. B. K.

Sterculiaceae

long trail to Gambia from brues. Fl. reddish pink, geminate.

3778. *Piper reticulatum* L.

Piperaceae

long trail to Gambia from brues. A shrub.

3779

long trail to Gambia to brues. Stems 2-3m. high. Leaves
lescent. Fl. pale pink.

3780. *Coix lacryma Jobi* L.

Gramineae

long trail from Gambia to brues. Stems 2^m high.

224
3781. *Panicum zizanioides* H. B. K.

Graminae

July 2^d 1911.

Along trail from Gamboa to Cruces.

3782. *Piper peltatum* L.

Piperaceae

Along trail from Gamboa to Cruces. About 50 m. high. Herbaceous or suffrutescent.

3783. *Alibertia edulis* A. Rich.

Rubiaceae

Along trail from Gamboa to Cruces. A shrub or small tree.

3784

Rubiaceae

Along trail from Gamboa to Cruces. A shrub. Corolla short, orange yellow.

3785. *Guazalagunia panamensis* (Cav.) Schum.)

Rubiaceae

Along trail between Gamboa & Cruces. A shrub. Fl. white.

3786. *Isertia haenkeana* DC.

Rubiaceae

Along trail between Gamboa and Cruces. A shrub. Calyx red, corolla long orange red.

3787. *Piper*

Piperaceae

Along trail between Gamboa and Cruces. A low shrub.

3788. *Crimo*

Vitaceae

Around Gamboa. Fl. yellow.

3, 3789. *Lycoseris*.

Compositae

Port. Lorenzo in a ravine. E. D. Christopherson.

3, 3790. *Vochysia ferruginea* Mart
Malaqueto. Used as house timber.

Vochysiaceae

Black swamp near Lion Hill. A medium sized tree, candelabra branching, leaves slightly incurved. Racemes terminal. Fl. orange-yellow.

Trunk straight, nude for 2/3 of its length. June 5 - E. D. Christopherson

3, 3791. *Fimbristylis diphylla* (Retz) Vahl.

Cyperaceae

Around Culebra, common in ditches. July 5th 1911.

3, 3792

July 6th 1911.

Mamei Hill, on rocks. Small, creeping shrub. Fl. white.

3, 3793

Filix

Rocky slopes at Mamei Hill.

3794. *Eleocharis geniculata* (L.) R. Br.

Cyperaceae

Mamei Hill, in ditches along railroad.

3795

Filix

Mamei Hill, on rocky slopes.

3796. *Cissampelos pareira* L.

Menispermaceae

Mamei Hill, on rocky slope along railroad.

3, 3797 - *Cridera procumbens* L.

Compositae

Mamey Hill, on rocky, exposed slopes.

3, 3798.

Compositae

Mamey Hill, in old clearings. Herbaceous, about 1m. 50 high, fl. white.

3, 3799. *Alseia Cibourbon* Aubl.

Biliaceae

Mamey Hill, in second growth forest. A small tree, ramified almost from base in several stems. Fl. yellow.

3, 3800. *Swartzia* ^{*darienensis* Pittier} ~~*cracea* Benth.~~

Leguminosae

Mamey Hill, on rocky, wooded slopes. A small, spreading tree. Fl. pale yellow.

3, 3801. *Xanthosoma helioborifolium* (Jacq.) Schott.

Araceae

Mamey Hill, in shady, Heliconia covered ground. Leaves tortuous below.

3802. *Momisia iguanaea* (Jacq.) Rose & Standl.

Ulmaceae

Mamey Hill, on rocky, basalt capped top of hill. A very woody shrub.

3803 *Nectandra globosa* (Aubl.) Mez

Lauraceae

Mamey Hill. A small tree, with straight trunk, and flowering abundantly.

3804. *Urera*

Urticaceae

Mamey Hill, on top of hills. A small tree. Bracts not included in greenish yellow (not red) involucre.

30

3 3805. *Peperomia mameiana* C. DC.

Piperaceae

Mamei Hill, on rocky ledge.

3 3806. *Peperomia cordulata* C. DC.

Piperaceae

Mamei Hill

Mamei Hill, on rocky tops.

3 3807. *Labatia standleyana* Pittier Sapotaceae?

Mamei Hill, on highest slopes. A small tree. Sep. 4, 2 ext. hairy or velvety & brownish without, 2 int. yellowish white, smooth, petaloid. Corolla

3 3808. *Oldenlandia corymbosa* L.

Rubiaceae.

tubulose, 4-lobed; St. 4, opposed to cor.-lobes, connate at base, almost as long as cor.; fil. long & thick, anther small; Ovary inf. 4-ovulate; style straight, 4-lobulate, surrounded at base with a crown of hairs. Mamei Hill, around railroad. Fl. white.

3 3809 *Zanthoxylum*

Rutaceae

Mamei Hill, near highest tops. A tree, 10-15 m. high, 30 cm. diam.

Acabú; barbasco (Pto Obaldia y Bolívar) en donde echan pedregos de la corteza en pozos, para entumecer y prender el pescado.

Trunk straight, provided at base with conical spines, hollow and ants bearing.

3810. *Capnicum baccatum* L.

Solanaceae

Mamei Hill, in old clearings. Fl. white

3811. *Piper reticulatum* L.

Piperaceae

Mamei Hill, near base of hill, a shrub or treelet, 2-3 m. high.

3812. *Piper tiliaefolium paulowniaefolium* C. DC.

Piperaceae

Mamei Hill, near base of hill. Shrub or treelet.

31

July 6, 1901.

July 6th 1911.

- 3 3813. *Cynodon / Cyniola Dactylon* O.K. Graminae Mamei Hill, along railroad. Common everywhere
- 3 3814. *Phaseolus aureus* Roxb. Leguminosae Mamei Hill, along railroad.
- 3 3815. *Chrysophyllum lanifolium* L. Sapotaceae Around Tabernilla, a tree.
- 3 3816. *Stachytarpheta cayennensis* (Richt.) Vahl Verbenaceae Around Tabernilla, in waste places. Fl. lilac purple, small.
- 3 3817. *Cochlospermum siliquosum* L. Liliaceae Around Tabernilla, in waste places. A low shrub, 30-40 cm high. Fl. yellow.
- 3 3818. *Lida carpinifolia* L. Malvaceae Around Tabernilla, in waste places.
- 3 3819. *Lida carpinifolia* L. Malvaceae Around Tabernilla, in waste places.
- 3 3820. *Anguria warszewiczii* Hook. f. Cucurbitaceae Around Tabernilla, in bushes. Slender vine. Fl. brick red, caducous.

3821. *Xanthosoma helleborifolium* (Jacq.) Schott. Araceae

July 6th 1911.
Around Catemilla, in grassy places.

3822. *Pentagmia pubescens* (Haxolley) Rutaceae

Around Catemilla, in forest. A treelet, 3-4m. high.

3823. *Cecropia longepedunculata* Pittier Moraceae

Around Catemilla. A small tree. Leaves, palmate-lobate, 9 lobes.
Peduncles short, hairy. Spikes very numerous, pale yellow, slender.

3824. *Panicum trichanthum* Gramineae

Around Catemilla, along railroad.

3825. *Cecropia longepedunculata* Pittier Moraceae

Around Catemilla. A small tree. Leaves palmate-lobate, 9 lobes.
Peduncles very long; ^{woody} bearing few (6) spikes, rather thick.

3826. *Cecropia mexicana macrostachya* Donn. Smith Moraceae

Around Catemilla. A small tree. Leaves divided almost to base, 13 lobate. Costa reddish as are pubescent petioles. Peduncles (2 at each axil) rough in surface, short, bearing two spikes.

3827. Filicinaceae

Around Catemilla, on bushy slopes.

3828. *Piper* Piperaceae

Around Catemilla, in bushes. Shrub, about 1.50 high.

July 6th 1911.

378

3829. *Diphidum caeruleum* Nutt. Haemodraceae Around Catemilla.

3830. Fungi Mamei Hill, on *Heliconia* debris, on the ground. Delicate pink.

3831. Fungi Mamei Hill, on rotten trees debris. Orange red.

3832. Fungi Mamei Hill, on petiole of leaf belonging probably to Rubiaceae.

July 8-10, 1911

3833 Euphorbiaceae Nombre de Dios, a common weed on sandy beach.

n.v. Chilo

3834. *Amerimum Brownei* Sw. Leguminosae Nombre de Dios; a shrubby vine on strand. Fl. white.

(*Dalbergia Amerimum* Benth.).

3835. *Ipomoea* Convolvulaceae Nombre de Dios; milky vine, climbing on bushes; common in the
Rivera campanulata (L.) House Pato' valley. Fl. deep carmine.

3836. Nombre de Dios, in bushes; a small tree. Fl. yellowish white.

Vara flanca

July 8-10, 1911.

3837

Labiatae

Nombre de Dios, common on sandy alluvial ground. Fl. white

3838. *Dieffenbachia longispatha* Engelm & Krause

Araceae

Nombre de Dios, on marshy alluvial flats. Pl. 1^m high.

3839. *Bunchosia glauca* *cornifolia* Beresio

Malpighiaceae

Nombre de Dios, on river flats; a spreading treelet. Fl. yellow. Fr. rather small; leaves scarcely glaucous below.

3840 *Bunchosia cornifolia* Beresio

Malpighiaceae

Nombre de Dios, on river flats and up the Fato Valley. A small spreading tree. Fl. glaucous (whitish) below, fl. yellow, fr. red, rather large, ovoid, apiculate.

3841. *Monstera pertusa* de Vries & *modesta* (Schott) Engelm. Araceae

Nombre de Dios, epiphytic. Spathe white, with purple upper third.

3841 ^{bis} *Piper tiliaefolium* *paulowniaefolium* - Piperaceae

3842. *Piper reticulatum* L. *canadense* L. DC. Piperaceae
Gusanillo negro

Nombre de Dios, at foot of hills; a small tree, 2-3^m high.

3843. *Drymonia spectabilis* Mart.

Gesneraceae

In forest back of Nombre de Dios, in epiphytic vine. Fl. large, greenish yellow at base, dark purple at tip.

3844. *Piper*
Gusanillo negro

Piperaceae

In forest back of Nombre de Dios, a treelet, 2.50-3m. high.

July 8-10, 1911.

41

3845 *Piper*

Piperaceae

In hills back of Nombre de Dios. A shrub.

3846 *Componeura costaricensis* Urb.

In hills back of Nombre de Dios. A small, symmetrical tree, 2.5 to 3 m. high.

3847 *Dieffenbachia Verstedtii* Schott.

Araceae

In shady vale on hills back of Nombre de Dios. Petioles and peduncles marbled with deep green on yellowish back ground.

3848

Zingiberaceae

On shady slopes back of Nombre de Dios; bracts & perianths brick red. Plant 1.5-2 m. high.

Bitungo (Pato); bijaquillo (Obaldia).

3849

On shady wooded slopes back of Nombre de Dios. A small tree, 3-5 m. high. Fl. small, yellow.

3850 *Calyptracarya glomerulata* (Brongn.)

Cyperaceae

On shady slopes back of Nombre de Dios.

3851 *Clidemia petiolata* (Rich.) DC.

Melastomataceae

On shady, wooded slopes, back of Nombre de Dios. Corolla greenish yellow.

3852 *Clidemia dentata* Don

Melastomataceae

On shady, wooded slopes, back of Nombre de Dios. Corolla white.

July 8-10, 1911

42

3853.

Euphorbiaceae

Hilly forests back of Nombre de Dios. Fl. yellow. A treelet 3-4" high.

3854 *Casaria javitensis* NBK.

Hilly forests back of Nombre de Dios. A small tree, 8-12m. high, 25³⁰cm. diam., elongate. Fl. white.

3855. ~~Enomita~~? *Rudgea caribaea* Benth. Rubiaceae

~~Chenopodiaceae~~

Hojá de frasco. The erect, slender stems, are used in house building.

Hilly forests back of Nombre de Dios. A treelet, 3-4" high. Trunk straight.

3856. *Sorocea affinis* Hemsl.

Moraceae

Hilly forests back of Nombre de Dios. A treelet 3-4m. high. Racemes congested, hanging, golden yellow. ♂ only. Perianth divisions 4; Stamens 4, opposed to perianth divisions. Fl. pedicellate.

3857. *Gustavia parvifolia* Pittier.

Lythridaceae

Bejico de Luca, although no vine at all.

Hilly forests back of Nombre de Dios. A medium sized tree, 12-15m. high, 25cm. diam. Fl. large, yellowish white.

3858. *Pentagmia gymnopoda* Standley

Rubiaceae

Hilly forests back of Nombre de Dios. A shrub, 2-2.50 high.

3859. *Ipomoea pes caprae*

Convolvulaceae

Sandy places air and around Nombre de Dios.

3860. *Crotalaria retusa* L.

Leguminosae

Sandy waste places around Nombre de Dios. Fl. yellow & brownish purple.

44

3861. *Melampodium divaricatum* (Rich.) D.C.

Compositae

July 8-10, 1911.

Climbing on bushes around Nombre de Dios. Fl. orange-yellow.

3862. *Piper*

Piperaceae

Alluvial flats around Nombre de Dios. A shrub.

3863

Fungus

On *Bunchosia*, around Nombre de Dios. Fruits yellow spots on leaves.

3864

Aracea

Around Nombre de Dios. Epiphytic.

3865

Melon jamaicano

Cucurbitaceae

Along Rio Fato, above Nombre de Dios. A vine, trailing on bushes.

Fruits ovoid, orange yellow. Placentas 3, orange red, sweetish. Alcoholic
materiales.3866. *Dalechampia*

Euphorbiaceae

Along Rio Fato, above Nombre de Dios. A vine, climbing on bushes.

3867. *Philodendron Wendlandii* Schott. det.

Aracea

Along Rio Fato, above Nombre de Dios; a beautiful epiphytic plant

Leaves thick, dark green above, pale green beneath, acuminate, ovate-lanceolate, auricu-
late at base. Petiole thick, winged, ± 9 cm. long, lamina 3 cm. long, 13 cm. broad. Spathe yellowish
green, with purple circles, brownish dots, spathe on outer face, 14-16 cm. long, ± 11 cm. broad
when flat, acuminate. ♀ part of spadix brownish, ± 4 cm. long. ♂ part yellow, claviform, 8.5 cm. long.3868 *Cayaponia Poeppigii* Cogn.
Bejuco coco

Cucurbitaceae

Along Rio Fato, above Nombre de Dios; A vine, ♂ fl. large, white inside.

46
3869. *Hirtella triandra* Sw.
Ganapata; fr. edible

Rosaceae

47
Along Rio Fato, above Nombre de Dios. A small tree ⁷flat crowned, with pinkish white flowers and fruits about the size of a nutmeg, blackish green outside.

3870
Tarino; seeds used as a vomitive.

Along Rio Fato, above Nombre de Dios. A small tree. Fruits the size and appearance of a green mango

3871. *Unonopsis Pittieri* Safford.
Yalla; a very soft wood, used for building purposes

Annonaceae

Along Rio Fato, above Nombre de Dios. A medium sized, pyramidal and regularly shaped tree. Fl. greenish.

3872. *Piper reticulatum* L.

Piperaceae

Along Rio Fato, above Nombre de Dios. A shrub, about 2' high.

3873 *Nectandra globosa* (Aubl.) J.
Ligua negro

My Lauraceae

Along Rio Fato, above Nombre de Dios. A medium sized tree.

3874
Besico de chumico

Dilleniaceae

Along Rio Fato, above Nombre de Dios; a vine, climbing high in trees. fl. white?

3875. *Cupania cinerea* Poepp.
Galacia

Sapindaceae

Along Rio Fato, above Nombre de Dios. A medium sized tree. Fl. white.

3876. *Vismia guianensis* (Aubl.) Pers.
Sagrillo

Myrtaceae

Along Rio Fato, above Nombre de Dios. A treelet, 3' high.

July 8-10, 1911.

- 3877 *Mendoncia costaricana* (Vries) Bignoniaceae Along Rio Fato, above Nombre de Dios. A vine. Fl. white with dark purple spots at corolla throat.
- 3878 *Cissus* Vitaceae Along Rio Fato, above Nombre de Dios. A vine, trailing on bushes; fl. greenish or pale yellow.
- 3879 *Lonchocarpus lucidus* Pittier Leguminosae Along Rio Fato, above Nombre de Dios. A large tree.
Lute cueros (Pentaclethra has same name)
- 3880 *Ficus glabrata* H.B.K. Moraceae Along Rio Fato, above Nombre de Dios. A large tree.
Higueron
- 3881 *Piper linearifolium* C. DC. Piperaceae Along Rio Fato, above Nombre de Dios, in gravel. A low, bushy shrub.
Gusanillo blanco
- 3882 *Piper reticulatum* L. Piperaceae Along Rio Fato, above Nombre de Dios. A treelet.
Gusanillo negro
- 3883 *Conostegia xalapensis* (Baup.) Melastomataceae Along Rio Fato, above Nombre de Dios. A treelet. Corolla pink.
Zuieravangue Dan
- 3884 *Hippocratea volubilis* L. Combretaceae Along Rio Fato, above Nombre de Dios. A vine, climbing on high trees, but flowering low. Fl. yellowish white.
Bejuco de uña

July 8-10, 1911.

3885. *Selaginella*

Selaginellaceae

Along Rio Fato, above Nombre de Dios,

3886. *Paullinia funicularis* Radlk. sp. n.

Sapindaceae

Along Rio Fato, above Nombre de Dios. A vine, cauliflorous. Fl. white.

3887. *Stigmaphyllon puberulum*
Nees

Malpighiaceae

Along Rio Fato, above Nombre de Dios. A vine. Petals yellow at base, brownish purple at tips.

3888. *Peperomia*

Piperaceae

Along Rio Fato, above Nombre de Dios

Piper geniculatum has form of b. d. d.

3889. *Cassipouira panamensis* Standley

Rubiaceae

Along Rio Fato, above Nombre de Dios. A small tree. Fl. white.

3890

Gesneraceae

Along Rio Fato, above nombre de Dios. Epiphytic.

3891. *Peperomia oblongibacca* b. d. d.

Piperaceae

Along Rio Fato, above Nombre de Dios. Epiphytic.

3892. *Coussapea panamensis* Pittier

Moraceae

Along Rio Fato, above Nombre de Dios. A tree

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52
3893. *Ficus panamensis* Standley

Moraceae

53
Along Rio Fato, above Numbre de Dios. Epiphytic

3894. *Costus*

Zingiberaceae

Along Rio Fato, above Numbre de Dios. Fl. dark reddish purple.

3895. *Petreaea volubilis*

Verbenaceae

Along Rio Fato, above Numbre de Dios. A viny shrub.

3896

Filicinae

Along Rio Fato, above Numbre de Dios. Epiphytic

3897. *Cytharexylum macranthum* Pittier sp. nov.

Verbenaceae?

Along Rio Fato, above Numbre de Dios. A subepiphytic shrub. ~~1/2~~
Note gland at base of lamina. Fl. white.

3898. *Adenocalymna flos-Ardeae* Pittier
Bejuco de garza

Bignoniaceae

Along Rio Fato, above Numbre de Dios. A vine. Fl. white.

3899

Urticaceae

Along Rio Fato, above Numbre de Dios. A shrub.

3900. *Ruellia Pittieri* Lindau

Scrophulariaceae

Along Rio Fato, above Numbre de Dios.

July 8-10-1911

3901

Myrtaceae

Along Rio Fato, above Nombre de Dios. A small tree, with numerous white flowers; very ornamental.

3902. *Peperomia fatoana* C. DC.

Piperaceae

Along Rio Fato, above Nombre de Dios. Epiphytic

3903. *Weberocereus Pittieri* Rose, n. sp.

Cactaceae

Along Rio Fato, above Nombre de Dios. Epiphytic. Stems triangular, with edges indented at short intervals (2-3 cm.). Fl. + fr. long, sessile. Calyx yellowish white; corolla white. Stigma yellow, purple.

3904

Filices

Along Rio Fato, above Nombre de Dios. Tree Fern, growing on shady, steep bank of river, 2 m. high.

3905. *Oncidium pusillum* Rehb. fil.

Orchidaceae

Along Rio Fato, above Nombre de Dios. Epiphytic. Fl. yellow.

3906

Filices

Along Rio Fato, above Nombre de Dios. Epiphytic.

3907 *Cayaponia coriacea* Cogn. CucurbitaceaeAlong Rio Fato, above Nombre de Dios. A vine, climbing ^{high} on trees.3908. *Ficus panamensis* Standley

Moraceae

Along Rio Fato, above Nombre de Dios. Epiphytic on high Sloanea

July 8-10, 1911

3909. *Piper auritum* H. B. K.

Piperaceae

Along Rio Fato, above Nombre de Dios. A small tree. Odoriferous.

3910. *Andira sapindoides* Benth.

Leguminosae

Along Rio Fato, above Nombre de Dios. A large tree in light forest of alluvial flats.

3911. *Phthirusa Pittieri* Krause sp. nov.

Loranthaceae

Epiphytic on Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Fl. yellow.

3912

Polypodiaceae

Along Rio Fato, above Nombre de Dios. A low, suffrutescent shrub. Fl. yellowish or brownish, caducous.

3913

Polypodiaceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Costa dark red.

3914. *Peperomia guadalupensis* C. D. C.

Piperaceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*.

3915

Anonaceae

Along Rio Fato, above Nombre de Dios. Habit and size of *Eugenia*.

Yalla.

3916. *Anthurium*

Araceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Seeds and spathe orange red.

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3917. *Inga Ruiziana* Don

Leguminosae

Along Rio Fato, above Nombre de Dios. A medium sized tree.

3918. *Kolobochilus leiorhachis* Lindau

Ucunthaceae

Along Rio Fato, above Nombre de Dios. Flowers bright red.

3919. *Hydrangea* ^{*panamensis* Standl. Type}
~~*peruviana* Moric.~~

Saxifragaceae

Along Rio Fato, above Nombre de Dios. A few large, yellow corolla. The dark purple buds = floral buds and then calyx purple? Epiphytic on *Sloanea*3920. *Sloanea megaphylla* Pittier

Elaeocarpaceae

Mameicillo Colorado, much used in balsa in dock structure

Along Rio Fato, above Nombre de Dios. A tree with flat buttresses, about 40 cm. diam, 25 m. high.

3921. *Alibertia edulis* A. Rich.

Rubiaceae

Between Nombre de Dios & Playa Santa, along beach. Fl. white

3922. *Randia aculeata* L.

Rubiaceae

Between Nombre de Dios & Playa Santa, along beach. Fl. white. Fr. green?

3923. *Piper*

Piperaceae

Between Nombre de Dios & Playa Santa, along beach. A low bush.

3924. *Thevetia nitida* (HbK) DC.

Apocynaceae

Between Nombre de Dios & Playa Santa, along beach. Fl. pale yellow.

60
3925. *Brassavola venosa* Lindl.

Orchidaceae

July 8-10, 1911.

61
Between Nombre de Dios & Playa Dama, along beach. Fl. white.

3926. *Wedelia trilobata* (L.) Hitchc. ~~Compitae~~ Compositae

Between Nombre de Dios & Playa Dama, along beach. Gregarious, trailing.

3927. *Smilax*

Between Nombre de Dios & Playa Dama, along beach. A thorny, climbing vine. Fl. greenish.

3928. *Morinda Roioi* L.

Rubiaceae

Between Nombre de Dios & Playa Dama, along beach. A vine, with concrescent calyx and pinkish flowers.

3929. *Myrsine eucymosa* Less. & Pitt.

Between Nombre de Dios & Playa Dama along beach. A treelet.

3930. *Piper elongatum* Vahl.

Piperaceae

Between Nombre de Dios & Playa Dama, along beach. A treelet, about 3^m high.

3931. *Hamelia axillaris* Sw.

Rubiaceae

Between Nombre de Dios & Playa Dama, along beach

3932. *Cordia heterophylla* Roem. & Sch.

Boraginaceae

Between Nombre de Dios & Playa Dama, along beach. A tree, 7-8^m high, dividing from near to base. Fl. white.

July 8-10, 1911.

62

3933. *Piper auritum* H.B.K.

Piperaceae

Between Nombre de Dios y Playa Dama, along beach. A gregarious treelet, single stemmed, flat crowned, odoriferous.

3934. *Piper marginatum* Jacq.

Piperaceae

Between Nombre de Dios & Playa Damas, along beach. A treelet.

3935. *Piper jatoanum* C. DC.

Piperaceae

Between Nombre de Dios & Playa Damas, along beach. A low treelet.

3936. *Psychotria undata* Jacq.

Rubiaceae

Between Nombre de Dios & Playa Damas, along beach. A low bush. Fl. white.

3937. *Chiococca alba* (L.) Hitchc.

Rubiaceae

Between Nombre de Dios & Playa Damas, along beach. A vine. Fl. urceolate, pinkish white.

Leguminosae

3938. *Caesalpinia Bonducella* Rob.

Leguminosae

Between Nombre de Dios & Playa Damas along beach. A climbing vine, with long raceme of yellow flowers.

Calentura (N. de D.); *mata* en P^{to} Obaldia en donde la infusión se usa para curar la inflamación de los ojos.

3939. *Hibiscus tiliaceus* (*Parvium tiliaceum* (L.) Pers.) Malvaceae

Mayagua de playa (Nombre de Dios, Obaldia)

Between Nombre de Dios & Playa Damas, along beach. Fl. yellow.

3940. *Catenaemontana grandiflora* Jacq.

Apocynaceae

Between Nombre de Dios & Playa Damas, along beach. A small tree. Fl. large, white.

63

64
3941. *Cordia nitida* Vahl.

Borraginaceae

July 8-10, 1941

65
Between Nombre de Dios & Playa Damas. A tree with rounded crown.
Fl. white, odorless.

3942. *Lytharexylum caudatum* L.

Verbenaceae

Between Nombre de Dios & Playa Damas, along beach. A shrub. Fl.
white

3943

Mangle negro

Between Nombre de Dios & Playa Damas, along beach, in mangrove for-
mation, next to water. Fl. yellow.

3944. *Chloris petraea* Sw.

Graminae

Between Nombre de Dios & Playa Damas, along beach.

3945. *Laguncularia racemosa* Gaertn.
Mangle blanco

Verbenaceae

Between Nombre de Dios & Playa Damas, in mangrove bush,
farthest from water.

3946. *Croton*

Liliaceae

Between Nombre de Dios & Playa Damas, along beach. Fl. white.

3947

Cactaceae

Along Rio de Fato, above Nombre de Dios. Epiphytic.

3948.

Fungus

Along Rio de Fato, above Nombre de Dios. On old rotten wood. May
like a flower.

3949. *Protium copal* Engler

Burseraceae

July 8-10, 1911

Along Rio de Fato, above Nombre de Dios. A small tree. 67

3950. *Commersonia parsonsii* Leguminosae
n.v. Almendro. Pitier (Type)

Botila Mos. between Mamei & San Pablo. A very large tree, 50' high, with rounded crown. Seen also in Fato Valley - July 12th 1911 - E. C.

3951. *Caryota*

Palmae

July 13th, 1911

Hospital Grounds at Ancon. ♂ fl. only, in alcohol. Fl. extraordinarily numerous, forming a 10cm. thick layer at foot of palm. Bk or specimens of the latter seem to be wanting (no, see nearer!).

3952. *Genipa Carato* H. B. K.

Rubiaceae

Hospital Grounds at Ancon. A small tree. Fl. white, turning yellow at later stages.

3953. *Ficus glabrata* H. B. K.

Moraceae

Hospital Grounds at Ancon. A large tree, very ornamental, reaching often 30-40m.

3954. *Philo*

Araceae

Hospital Grounds at Ancon. Epiphytic. 1 Kolben in alcohol, 2 tubes.

3955

Anonaceae

Hospital Grounds at Ancon. A tree with short trunk and flat crown. Fr. large, ^{pseudo}± spherical, 12cm. long, 11cm. diam. Scales coriaceous. Peduncles 18-20 cm. long, 1cm. diam, ending with 1 fr. and 1 branchlet. Ped. 1.5m. long.

~~3956~~

July 13th 1911.

3956. *Cyperus rotundus* L.

West Indian Nut Grass.

Cyperaceae

Hospital Grounds at Ancon. A common weed.

3957 *Ocotea acutangula* (Wieg.) Mez Lauraceae

no 3, Col. Massey.

Hospital Grounds at Ancon. A small tree. Leaves have a slight cinnamon flavor and odor.

3958. *Euphorbia*

Euphorbiaceae

Hospital Grounds at Ancon. A common weed.

3959. *Eryngium foetidum* L.

Culantro

Umbelliferae

Hospital Grounds at Ancon. In damp, or rather indifferent places.

3960.

Col. Massey no 2.

Caprifoliaceae

Hospital Grounds at Ancon. A small tree.

3961. *Pseuderanthemum* cf. *adspersum*.

Acanthaceae

Hospital Grounds at Ancon. Cultivated. Fl. white, with purple throat.

3962. *Peperomia*

3963. *Fourcroya*

Amarillidaceae

Culebra, on ^{hill} sides; also cultivated. Alcohol mat. (2 tubes). Perianth divisions pale green. Mean length of leaf 2.7; breadth 14-16 cm.

July 17, 1911

3964

Zingiberaceae Between Miraflores & Pedro Miguel. Fl. white.

3965. *Rytidix granularis* Steels.

Graminae. Between Miraflores & Pedro Miguel, in gravelly places along road.

3966 *Imperata contracta*

Graminae
Between Miraflores & Pedro Miguel. Common in dry, sandy places.

3967. *Andropogon bicornis* L.

Graminae Between Miraflores & Pedro Miguel. Common on dry slopes.

3968 *Solanum subverne* Jacq. Solanaceae Between Miraflores & Pedro Miguel. A ^{thorny} shrub with purple flowers.

3969. *Pithecolobium hymenaeifolium* (H. & B.) Benth. Leguminosae Between Miraflores & Pedro Miguel. A thorny shrub; fl. white.

3970. *Phyllanthus*

Euphorbiaceae Pedro Miguel, on earth dam.

72
3971 *Prioria copaifera* Gris.
Copaiva

Leguminosae

3972

3973 *Inga spuria* Willd.

Leguminosae

3974 *Epidendrum latilabre* Lindl.

Orchidaceae

3975 *Oxypteleum panamense* Staudl.
Asclepiadaceae

3976 *Odontadenia speciosa* Benth. Apocynaceae

3977 *Coutarea hexandra* Schum.

Rubiaceae

3978 *Clidemia neglecta* Don Melastomataceae


July 19-21

73
Along Trinidad River. A large tree in permanently or periodically
inundated ground.

Along Trinidad R. A vine. Fl. white or pinkish white, with broad
spur. Hanging from trees and apparently common.

Along Trinidad R. A low tree, ramified from the base. Still alive in
places permanently inundated.

Along Trinidad R. Epiphytic. Fl. large, greenish yellow.

Along Trinidad R. Climbing on bushes in inundated places. Fl. white
with purple radial streaks. Fr.  conical, green, hanging, quite smooth.

Along Trinidad R. A vine; fl. ^{rotate} ~~amperulate~~, of a beautiful ^{deep} yellow (brown
ish at base?). Milky.

Along Trinidad R. A treelet, 2-3 m. high. Fl. purplish white.

Collected near Guapiles

Along Trinidad R. on high ground near Agua Clara. Fl. white; a low
bush.

3979 *Solanum jamaicense* Willd. Solanaceae
Huevos de Gato.

3980 *Bellucia grossularioides* (L.) ^{Melastomataceae}
^{Trepia}

3981 *Riveria campaulata* (L.) ^{Haus} Convolvulaceae
Used to wrapulate rubber.

3982 *Peperomia obscurifolia* C. DC. Piperaceae

3983 *Peperomia fatoua* C. DC. Piperaceae

3984 *(Choisya) Tourateia simplex* Gaubert. Leguminosae

3985 *Clidemia hirta* (L.) Don ^{Me}
^{Melastomataceae}

3986 *Aciotis paludosa* (Mart.) ^{Melastomataceae}
^{Prana}

July 19-21, 1911.

Around Agua Clara de Trinidad. A low bush. Fl. small, yellowish. Fruits rounded, small (\pm 3mm diam.) golden orange, hairy.

Around Agua Clara de Trinidad. A small, flat-topped tree. Fl. pinkish white, large.

Around Agua Clara de Trinidad. A milky vine. Fl. dark pink inside, pale outside.

Around Agua Clara de Trinidad. Epiphytic. Foliage dark green.

Around Agua Clara de Trinidad. Epiphytic. Foliage yellowish green.

Around Agua Clara de Trinidad, in hills. A small, 3-4 high tree. Wood white, very hard.

Around Agua Clara de Trinidad. A shrub. Fl. white.

3978.

Around Agua Clara de Trinidad. Suffrutescent. Stems winged, erect. Fl. pinkish white.

July 19-21, 1911.

76
3987 *Miconiolaria*

Meleostomataceae

Around Agua Clara de Trinidad, on hills. A shrub. Fl. white

(Bonpl.) Naud.

3988 *Dolioscarpus punctatus* Dilleniaceae
Standl.

Around Agua Clara de Trinidad. A vine.

3989 *Viomea*

Guttiferae

Around Agua Clara de Trinidad. A small tree, 3m. high. Fl. being inside, yellowish white.

3990 *Leandra mexicana* (Naud.)
Cogn.

Meleostomataceae

Around Agua Clara de Trinidad. A shrub, fl. pink.

3991 *Mayoba laurina* Warburg

Flacourtiaceae

Around Agua Clara de Trinidad. A small tree.

3992 *Pentagmia macrophylla* Benth.

Rubiaceae

Around Agua Clara de Trinidad. A treelet with unramified stem. Fl. yellowish white.

3993 *Psychotria brachiata* Sw.

Rubiaceae

Around Agua Clara de Trinidad. A bushy shrub; fl. yellow.

3994 *Maripa panamensis* Hemsl.

Convolvulaceae

Around Agua Clara de Trinidad. A vine.

78
3995

Vitaceae

July 19-21, 1911.

Around Agua Clara de Trinidad. Climbing on bushes in inundated places and conspicuous for its deep incarnate flowers.

3996

Solanaceae

Along Trinidad River, between Agua Clara & Escotal. Climbing on dry bushes in inundated places. Racemes hanging.

3997. *Hibiscus bifurcatus* Cav.
Algodoncito

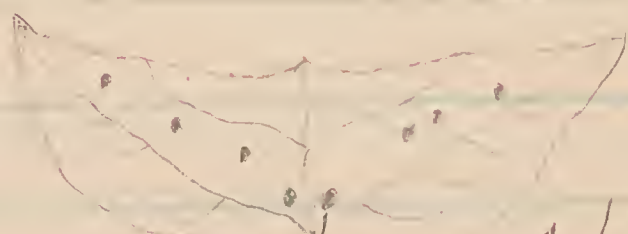
Malvaceae

Along Trinidad River, between Agua Clara & Escotal. A treelet, 3-4 m. high, growing in inundated places. Fl. very large, pink with purple streaks, very ornamental.

3998. *Panipora*

Parnassaceae

Along Trinidad River, in the inundated zone, climbing on dry bushes, common. Fl. white, open early morning, closing at about 10 am.



3999 *Andira jamaicensis* (Wright) Urb. ^{Leguminosae?}

Along Trinidad R. between Escotal and the mouth of Liri R. A small tree. Fr. ovoid, smaller but like those of n.?

4000 *Hiraea faginea* (Sw.) Naud. Malpighiaceae

Along Trinidad R. betw. Escotal and Boca de Liri. A vine. Fl. yellow.

4001

Stylogyne laevis (Curt) Mez

Myrsinaceae

Along Trinidad R. near Lagartera. A small tree, \pm 2 m. high. Rhachis pink, coral looking. Fl. white. Fr. black when ripe.

4002 *Combretum punctulatum* Pitt. sp. n.

Combretaceae

Along Trinidad R. near Lagartera. A thorny vine; fl. white

4003. *Macfadyena uncinata* DC.

Bignoniaceae

July 19-21.

Along Trinidad R., near Lagartera. A vine, with hanging, ⁸¹¹floury ends. Corolla pale yellow, erect.

4004

Selaginellaceae

The forest near Lagartera, very abundant, strikingly erect and fern-looking.

4005. *Chrysophyllum* ~~*paranurella*~~ *Pittier*

Sapotaceae

Along Lirio R., Trinidad basin. A tree, medium sized. Corolla greenish yellow.

4006. *Heisteria*

?
Olacaceae

Along Lirio R., Trinidad basin. A shrub. Calyx red.

4007. *Strychnos* *paranurella* *DC.*

Along Trinidad R., below Lagartera. Fl. flaccid. Ripe fr. spherical, ± 4 cm. diam.

4008. *Glytostoma isthmicum* Pittier

Bignoniaceae

Along Trinidad R., below Lagartera. Fl. pinkish purple; common.

4009. *Anemopaegma punctulatum* Pittier

Bignoniaceae

Along Lirio R., just above the mouth. Fl. geminate, corolla pale yellow. Ends of vines hanging.

4010. *Quararibea pterocalyx* Hemsl.

Sterculiaceae

Along Trinidad R. at Lagartera. Fl. elongate, white. Style longer than corolla.

4011. *Paullinia bracteosa* Radlk.

Lapindaceae

4012. *Calathea*

Bijão macho.

4013. *Philodendron rigidifolium* Krause.

Araceae

4014

Filices

4015. *Philodendron*. (indet.).

Araceae

4016. *Piper peltatum* L.

Sta Maria

Piperaceae

4017. *Drymonia spectabilis* Mart.

Gesneraceae

4018. *Hippocratea decussata* (R. & P.) Peyr.

July 19-21, 1911.

Along Trinidad R. at Lagastera. A vine; fl. white

On Siri' R., about 4 m. from the mouth. - Leaves not white below.

Woods along Siri' R. epiphytic.

Woods along Siri' R.

Woods along Siri' R. - epiphytic. Spathe pinkish outside, red pink inside.

Clearings along Siri' R.

Woods along Siri' R. Epiphytic. Corolla large, pale brownish purple inside with darker dots, white outside.

Along Siri' R., on banks. A vine. Fl. greenish yellow (H. 3, Style 1?).

4019. *Swartzia panamensis* Benth.
Cutaro.

Leguminosae

4020. *Paspalum fasciculatum*
Gamalote

Graminae

4021

Gesneraceae

4022. *Ileria microcarpa* Nees.

Cyperaceae

4023. *Hyptis brevipes* Poir.

Labiatae

4024. *Anthurium acutangulum* Engl.

Araceae

4025. *Cyclanthus spartitus* Poir.

Cyclanthaceae

4026. *Panicum zizanioides* H. B. K.

Graminae

July 19-21, 1911.

Along Trinidad & Lirí Rivers. A medium sized tree (coll. Chayres).
Ht. ∞; petals yellow; velum large.

^{unwooded}
Covers banks of rivers everywhere in the low lands - Trinidad R.

Banks of Trinidad R.. An epiphytic, hanging vine. Fl. white.

Clearings along Lirí R.

Pastures along Lirí R. Fl. white.

Forests along Lirí R. Epiphytic.

Swampy clearings along R. Lirí.

Clearings along Lirí R.

4027. *Panicum frondescens* Mey. *Graminae*

4028

4029. *Dalbergia Monetaria* L.f. *Leguminosae*

4030. *Salacia* (Comtelea) *praeceles* Hippocrateaceae
(Miers) Standl.?

4031. *Guettarda foliacea* Standley n. sp. *Rubiaceae*

4032. *Pithecolobium Vahleanum* (D.C.) Benth. *Leguminosae*
Totacaballo

4033. *Coumarouna panamensis* Pittier sp. n. *Leguminosae*
Almendro. Bean said to be edible. Wood very hard.

4034. *Torocea affinis* Hemsley. *Moraceae*

July 19-21, 1911.

Clearings along Liri' R.

Along R. Liri'. Common. A small tree. Fl. yellow; petals caducous.

Along R. Liri'. A small tree.

Along R. Trinidad, near Lagaterra. A tree. Fl. small, yellow.

Along R. Trinidad near Lagaterra. A small tree, divided from the ^{with} base. ^{thorny}, aruncate stems. Fl. white.

Along Trinidad R., above Escobal. Fl. white or slightly pinkish.

On hills and high ground along Trinidad R. - Fl. pink.

Along Trinidad R., in woods. ♀ fl. only.

3855

88
4035 *Paullinia pinnata* L.

Lapindaceae

July 19-21, 1911.

89
Along Trinidad R., a vine. Fl. white.

4036

Filices

Along Trinidad R., near Escobal. Epiphytic

4037 *Weberocereus panamensis* Rose, n. sp. *Cactaceae*

Along Trinidad R. - Epiphytic. Stems almost cylindrical. Calyx pale yellow; corolla pinkish white. Fruit almost spherical, pink.

Alc. Mat. 1 tube

4038 *Cayaponia poeppigii* Cogn. *Cucurbitaceae*

Along Trinidad R. A vine. Fl. yellowish, very hairy inside.

Alc. Mat. 1 tube

4039 *Tertia haenkeana* DC.

Rubiaceae

Agua Clara, in bushes on hills; rather common. Fl. orange yellow.

4040 *Cayaponia poeppigii* Cogn. *Cucurbitaceae*

July 23, 1911

Quatro Calles Hills, facing Matachin, on R.R. talus.

Alcohol Mat. 2 tubes

4041

Filices

Quatro Calles Hills, facing Matachin, in old clearings.

4042

Filices

Quatro Calles Hills, facing Matachin, in old clearings.

90
4043. *Jumena*

Onagraceae

July 23^d 1911.

91
Cuatro Calles Hills, facing Matachin, in swampy ground. Fl. small, yellow.

4044

Filices

Common along Trinidad R.

Cuatro Calles Hills, facing Matachin, on clayey old clearings.

4045

Filices

Cuatro Calles Hills, facing Matachin, in shady woods.

4046

Marantaceae

Cuatro Calles Hills, facing Matachin, in shady wood. Floral stalk coming straight from rhizome. Plant 1.20 high. Fl. head rounded, fl. yellowish white.

4047

Rubiaceae

Cuatro Calles Hills, facing Matachin. A shrub. Fl. yellow.

4048

Solanaceae

Peltandra 2

Cuatro Calles Hills, facing Matachin. A shrub or small tree, 2-3 m. high. Fl. small. Petals white.

4049 *Oreocera diversifolia* (Naud.) Cogn. Melastomataceae.

Cuatro Calles Hills, facing Matachin. A shrub. Fl. pink.

4050

Marantaceae

Cuatro Calles Hills, facing Matachin. Floral stems with 3-4 nodes, each with a leaf. Radical leaves bristles. Plant 1.20 high. Floral head elliptic. Fl. yellowish white.

Collected at Mat. 1 m. from T. de S.

4051. *Cortus*

Marantaceae

4052

Filices

4053

Filices

4054. *Hibiscus spathulatus* Garke.

Malvaceae

4055. *Casnia reticulata* L.

Leguminosae

4056. *Cecropia arachnoidea* Pithier sp. n.

Moraceae

4057. *Cecropia mexicana macrostachya* Donn. Smith Moraceae4058. *Lapum*July 23^d 1911.Cuatro Calles Hills, facing Matachin, in shady gorge. Pl. helicoid
growing, \pm 50-60m. high. Fl. dark red.*Alchornea* 1 tube

Cuatro Calles Hills, facing Matachin, on stones.

Cuatro Calles Hills, facing Matachin, on trunks.

Cuatro Calles Hills, facing Matachin, in bushes along R.R. track.
Fl. purplish pink. Plant, 1st 50-2m. high.

Cuatro Calles Hills, facing Matachin, in waste places. Small fr. 8. m.

Cuatro Calles Hills, facing Matachin, along R.R. - 7 spikes. Leaves
10 lobed. *Alchornea* 1 tube - *Alchornea* 1 tubeCuatro Calles Hills, facing Matachin, along R.R. - Leaves 14-lobed. 7
only. *Alchornea* 2 tubes

Gamboua

1 tube, dry seed 1 tube

34
4059. *Guaiacum officinale* L.

Zygophyllaceae

July 26th 1911.

95

Santa Ana Park, in Panama City. A small tree, trunk erect, crown more or less pyramidal. Fl. azure-blue.

4060. *Cecropia arachnoidea* Pittier sp. n.

Moraceae

Culebra, along the railroad to Panama. Small tree, 5-6 m. high, with only primary ramifications - ♂ aments.

Alcohol. Mat., 1+. - Notes & Sketches

4061.

Marantaceae

Culebra, along a creek. Floral stalk fully foliated (4-5 leaves), 60-80 cm. high. Fl. head ovoid. Fl. purple. (white at base).

Alcohol. Mat. 1 small tube

4062. *Heliconia*

Musaceae

Culebra, along creeks and covering vast spaces in clearings.

4063. *Pleurya aestuans*

Urticaceae

San Pablo, in waste places. Chr.

4064. *Sporobolus Jacquemontii* Kth.

Graminae

Culebra. The commonest grass on slopes and dry places.

4065. *Synedrella nodiflora* Gaertn.

Compositae

Culebra, in waste places. Fl. small, yellow.

4066. *Heliotropium indicum* L.

Borraginaceae

Culebra, in waste places. A common weed.

4067

Cruciferae

Culebra, in waste places. Introduced and not frequent.

4068. *Ochyraanthos*

Amarantaceae

Culebra, common in waste places.

4069. *Laguncularia racemosa* Gärtn

Compositaceae

July 29th 1911.
Peña Prieta, near Panamá, in mangrove bushes.4070. *Sapium Moritzianum* Klotsch.

Euphorbiaceae

Peña Prieta, near Panama, on the beach. Foliage cinereo-viridis; trunk and limbs gray (except the young, green, sprouts); leaves narrow lanceolate basal glands cylindrical, erect, obtuse at tip. Margin finely denticulate. ^{capsules not} stipitate.4071. *Uniola Pittieri* Hackel.

Graminae

Peña Prieta, near Panama, along beach on "cerden littoral". Holoniferous, one single plant extending very far on one line.

4072. *Euphorbia*

Euphorbiaceae

July 31st
Culebra, along roads, procumbens.4073 *Euphorbia*

Euphorbiaceae

Culebra, along roads

4074. *Euphorbia*

Euphorbiaceae

Culebra, along roads

4075

Zingiberaceae?

4076. *Adiantum*

Filices

4077

Yaya de mono;

4078 *Stachyarrhena heterochroum*

Rubiaceae

Calabazuelo; good timber, used in native house building

4079 *Caonabo pedunculavis* (J.B.) Pittier

Celastraceae

Mangla mata-pescado; the corteza machacada se usa para meter el escudo. Squirrels & birds eat seeds. Timber hard & lasting.

4080. *Adiantum*

Filicinae

4081

4082 *Scica panamensis* Rose

Burseraceae

Copa; resin used to cure sores, and as incense in churches.

August 4-5, 1911.

Loma de la Gloria, Nombre de Dios, on shady slopes in high forest. Fl. yellow.

Loma de la Gloria, N. de Dios, in shady woods; very scarce.

Loma de la Gloria, N. de Dios. A small tree, with straight trunk and regular, pyramidal shape. Fr. yellowish white.

Loma de la Gloria, N. de Dios; small tree ^{8-10' high} with straight trunk & pyramidal crown; bark grayish, smooth; fl. in long ^{hanging} spikes, opening only a few at a time; corolla purplish pink inside, pale pink outside. Fr. said to be like a little calabash.

Loma de la Gloria, N. de Dios. A small tree, 6-8m. high, straight trunk & pyramidal crown; bark verruculose.

Loma de la Gloria, N. de Dios, in shady woods.

Loma de la Gloria, N. de Dios. Saprophytic; aphyllous; stems white; fl. pale blue

Loma de la Gloria, N. de Dios. A mid-sized tree, with smooth, grayish bark, and irregular branching.

4083. *Piper villiramulum* C. DC.

Piperaceae

August 4-5, 1911.

Loma de la Gloria, near Nombre de Dios. A treelet

4084 *Miconia heurlingii* Triana Melastomat.

Loma de la Gloria, N. de Dios. A low shrub in sunny places; fl. pink.

4085

Gesneraceae

Loma de la Gloria, N. de Dios, in wet, sunny places. Cor. orange-yellow

4086. *Adiantum*

Filices

Loma de la Gloria, N. de Dios, in half shady, rocky places.

4087. *Opeita aspera* Aublet.
Cortezia; bark used for ropes.

Tiliaceae

Loma de la Gloria, N. de Dios. Trunk slanting, crown rounded. Fr. discoid, flattened, with seeds germinating inside.

4088. *Pharus latifolius*

Graminae

Loma de la Gloria, N. de Dios. In high, shady places; scarce.

4089. See *Rajania costata* Billeb.
Raiz de la China. EXH.Loma de la Gloria, N. de Dios. Turtle-like rhizome, flat or concave below, with roots on periphery. Photos?4090. *Scaphyglottis unguiculata* Schltr. n. sp.

Orchidaceae

Loma de la Gloria, N. de Dios. Epiphytic. Fl. pale purple.

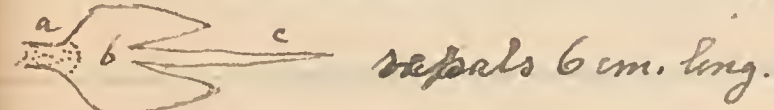
4091. *Epidendrum nocturnum* Jacq.

Orchidaceae

August 4-5, 1911.

4092. ~~Quercus~~ *Psychotria magna* Standley~~Rubiaceae~~

Loma de la Gloria, Nombre de Dios; sepals and inter petals pale yellow; inner petals white; a, yellow spot; b white wings; c. an acute point, 37mm. long, wings 20mm.



sepals 6 cm. long.

4093. *Quotaria natia* Pittier

Lauraceae

Loma de la Gloria, Nombre de Dios, a treelet \pm 3m. high; fl. yellowish white;leaves all at top; fr. golden yellow, long pedunculate, almost round except at the flat, discoid top, \pm 67mm. diam; pedunc. = 5-6 cm. 5 cells, containing 4-5 seeds.

4094

Loma de la Gloria, N. de Dios. A treelet, 1.50 high, not ramified; fl. near to base

inside flesh bright yellow. (The real length of pedunc. seems to be 3m, and the fr. slightly pyriform at base.) Photos; alcob. mat.

Loma de la Gloria, N. de Dios. Saprophytic; entirely now white

4095. *Myrcia*

Myrtaceae

Guayabillo; very strong wood, used in native house building

Loma de la Gloria, N. de Dios. A small, or middle sized tree, with greenish brown, smooth, peeling bark; up to 10m. high; fl. very numerous, white.

4096. *Pera arborea* Mutis

Euphorbiaceae

Feli; strong, white timber, used for building purposes (beams, etc)

Loma de la Gloria, N. de Dios. A large, or mid-sized tree, trunk lanky, seldom very straight; bark whitish and smooth; crown short and flattish. Sep. 2, hairy white; pet. 2, smooth white; st. 3(?) caducous; ov. sup. 4; stigmas yellow, like a 4-rayed star.

4097

Selaginella

Loma de la Gloria, N. de Dios; on dry ridges; shrinks at noon hours.

4098

Hoja de frasco (they give that name to all thick leaved tree); very much sought for, for native house bldg purposes

Loma de la Gloria, N. de Dios. A small tree, often ramified from the base, with straight stems, and smooth bark, and radiate branching.

4099 *Campsonura castorensis* Warb.

4100

Filices

4101 *Capirira myriantha* Br. & Planch.

Anacardiaceae

Bagamani, Vagamani, Varamani; an oily substance is extracted from the trunk

4102 *Clidemia deppeana* Steud. Melastomat.
Paita; fr. edible

4103 *Calathea lasiostachya* D. Don Martiana
Bijao

4104 *Guataria parvifolia* Pittier
Bejuno de Luca

Lecythidaceae

4105 *Chiotroma Bernouillii* Pittier.
Cacao de Monte

Sterculiaceae

4106 *Rhabdadenia paludosa*
(Vahl) Muell

Osclepiadaceae

August 4-5.

Loma de la Gloria, near Nombre de Dios. A small, 3m. high treelet, with smooth, straight stem and radiate branching. Fl. pinkish white.

Loma de la Gloria. N. de Dios; foot of hills on gravelly slopes.

Loma de la Gloria, N. de Dios; a large tree, up to 25 m high and more, and 80 cm. diam.; branching ascending, irregular; crown rounded depressed; fl. pale yellow; the trees are visible from a distance scattered on the afternoon-mn side of the hills.

Around Pató; a shrub with pinkish white flowers and azure-blue, hairy berries.

Loma de la Gloria, N. de Dios. Fl. stems \pm 1 m high, dark purple; fruit hairy, pale yellow with green margin; perianth purplish.

Loma de la Gloria, N. de Dios. Mid-sized tree / largest seen \pm 40 cm. diam, 20-25 m high, with a straight trunk, brownish, \pm rugged bark and fine wood. Fl. large, white (4-5 cm. diam. when flattened); fr. elongate (differ from n. 385 f. by larger fl. and Δ calyx tips).

Loma de la Gloria, N. de Dios. Mid-sized tree / largest seen \pm 30 cm. diam, 18 m high) trunk straight, with few primary limbs at top; flowers only on trunk, below first branches, calyx pale purple outside, red inside; petals red; corolla purple. Alas Mat.

Aug. 7-8. 1911.

Between Playa Damas and Viento Frio. Fl. white, with light purple tinges. A vine

August 7-8, 1911.

107

4107 *Cosmibuena paludicola* Standley. Rubiaceae

Between Playa Damas and Viento Frio, in mangrove swamp. A small tree, 4-5 m. high. Fl. white.

4108 *Euphorbia* Euphorbiaceae
(Tripa de pollo en el R. Sinú, Colombia).

Between Playa Damas & Viento Frio, on sandy "cordon littoral". A sub-woody shrub, 30-40 cm. high.

4109 *Conocarpus erectus* L. Combretaceae
Saragoza

Near Viento Frio; a low shrub.

4110 *Gilbertia arborea* (L. Mill.) Araliaceae

Near Viento Frio, in bushes on sandy "cordon"; a shrub, 1-1.50 high.

4111 *Myroxylon panamense* (Turcz.) Kuntze Placartiaceae
Xylocarpus
Jobo de Lagarto

Playa, near Viento Frio, along beach. A shrub or a treelet, thorny, 2-3 m. high.

4112 *Euphorbia* Euphorbiaceae

Playa, along the beach, in small colonies. A low shrub, \pm 30 cm. high.

4113 Cruciferae

Playa, a single colony on the "cordon". Fl. white.

4114 *Stylogyne laevis* (Herst.) Mez Myrsinaceae

Between Viento Frio & Palenque. A shrub, 1.50 high. Infl. purplish pink, petals pink.

4115. *Stenotaphrum secundatum* D. R.

Gramineae

August 7-8, 1911.

Along the Beach near Palenque. In colonies.

4116. *Avicennia nitida* Jacq.

Verbenaceae

Mangle salado / *Suricent confusa* (see *Laguncularia*)*Suricent* or *Suricent*?Near Palenque, ^{on coral rocks} along the beach. Low shrub, with pneumatophores. Fl. pinkish white. Sometimes a small tree.

4117

Near Palenque, on coral rocks along the beach.

4118

Portulacaceae

Near Palenque, on coral rocks along beach. Fl. purplish white.

4119. *Mutrichardia arborescens* (L.) Schott.

Cruciferae

Castaña. Fruits boiled with salt and eaten by the natives

Near Viento Frio, in mangrove swamps. About 2.50 high. Mature fruits rhomboid, 2-3 cm. diam., with a brown peltate.

4120. *Lippia nodiflora* (L.) Michx.

Verbenaceae

Near Palenque, on "cordon litoral", forming colonies. ~~Reptant~~ Fl. pale purple.4121. *Morinda panamensis* Seem.

Rubiaceae

Palenque. A small tree, 5-6 m. high. Fl. white; corolla with reflected lobes.

4122. *Spathiphyllum Friedrichskollii* Schott.

Cruciferae

Hoja de gallineto; rallito.

Back of Palenque, in swamps. Spathe white

August 7-8, 1911.

111

110
4123. *Sorocea affinis* Hemsl.

Berta', bollo blanco

Moraceae?

Back of Palenque, swampy forest. A small tree, 3-4m. high. Fl. yellow.

4124. *Odontonema longifolium* (Desf.) O. K.

Acanthaceae

Hills back of Palenque. \pm 1m high. Fl. scarlet red.

4125. *Antephora hermaphrodita* Ktze

Carriullo

Graminae

Around Palenque, common in clearings

4126. *Olyra latifolia* L.

Pitito

Graminae

Around Palenque in bushes.

4127

Filices

Back of Palenque, on skirt of woods

Bepico de Alambre. The decoction of the decorticated stems is
reputed at Palenque as a very effective specific against gonorrhea

4128. *Rynchospora micrantha* Vahl.

Cyperaceae

Around Palenque, a common weed.

Catello de Abadio

4129

Muricaceae

Around Palenque, common in clearings

Platanillo morado

M

4130. *Meibomia sapientia* (Sw.) Britton

Leguminosae

Around Palenque, in meadows.

Pega pega

August 7-8, 1911

118

4131. *Polygala paniculata* L.

Polygalaceae Between Palenque & Viento Frio.

4132. *Vigna repens* (L.) O. Kuntze.

Leguminosae Between Palenque & Viento Frio, on sandy "orden littoral". Fl. yellow.

4133. *Chloris petraea* Sw.

Graminae Between Palenque & Viento Frio, in coco-plantations. Spikelets green.

4134. *Chiococca alba* (L.) Hitchc.

Rubiaceae Between Palenque & Viento Frio. A shrub, common. Fl. bell-shaped, yellow. Berries white.

4135. *Chloris petraea* Sw.

Graminae Between Palenque & Viento Frio, in many places. Spikelets purplish.

4136. *Leptochloa virgata* Beauv.

Graminae Between Palenque & Viento Frio, in coco-plantations.

4137. *Costus*

Zingiberaceae Between Viento Frio & Playa Damas, covering extensive patches in coco-plantations. Fl. yellowish red.

4138. *Lagenaria vulgaris* Ser.

Cucurbitaceae Viento Frio, in grassy places. ♂ fl. pinkish white. Fruit apple-shaped, ± 30 cm. diam., 20 cm. high, greenish white.

114 *Simbistylis spadiacea* (L.) Vahl.
4139. Near Viento Frio, on the rocky beach.

Cyperaceae

August 7-8, 1911.

Near Viento Frio, on rocky coral beach. Gregarious

115

4140. *Encostemma verticillatum* (L.) Engl.

Gentianaceae

Near Viento Frio, on "erode littoral". Fl. white.

4141. *Sapium giganteum* Pittier n. sp.

Euphorbiaceae

Olive. Used only as fuel. Gen. apparently caudexless, but

letting out an abundant white resin.

4142. *Oldenlandia corymbosa*

Rubiaceae

Aug. 10th, 1911.

Near Fato'. A large, divaricate tree, with twisted limbs and flat, spreading crown. Stam. at base 1^m. Height to first fork, 8^m, total 30^m.

Wood white; bark rugous, split, grayish. Alc. Mat.

Fato', around houses and in waste places, a weed, not very common. Fl. white.

4143. *Mosquitoxylon spamaicense*, Krug. & Urban. Anacardiaceae

Jobillo. Used as heavy timber, in house, bldg. Seldom used when cut down.

Loma de la Gloria, near top. A tree, 0.40 diam. at base, 15m. to first fork, $\pm 25^m$ high. Bark reddish, slightly rugous and "decorticans", resinous.

Heart yellowish, hard, brittle. Fl. small, white. Fr. first red, then very dark purple.

4144.

Lippia betulaeifolia HBK.

Around Numbre de Dios, ad fossas. An herb, with queer, composite looking fl.

4145. *Cristolochia*

Guaco

Cristolochiaceae

Around Fato', in low, swampy grounds along Rio Numbre de Dios.

4146. *Eragrostis hypnoides*

Gramineae

Around Fato', ad fossas.

4147. *Paspalum verticillatum* Pir.

Graminae

August 10th 1911.

Grand Nombre de Dios, ad fossas.

4148. *Piper*

Piperaceae

August 12-14, 1911

Along Rio Culebra above Sta Isabel, in clearings.

4149. *Aegiphila martinicensis* L.

Verbenaceae

Juan de la Verdad.

Along R. Culebra above Sta Isabel, in clearings. Cor. pale yellow.
cordatus.4150 *Leandra serundiflora*
(M. W. S.) Cogn

Melastomataceae

Along R. Culebra above Sta Isabel. A shrub. Cor. pale pink.

4151. *Olyra latifolia* L.

Graminae

Along R. Culebra above Sta Isabel.

4152 *Laristema pedicellatum* Stapf. Type
Lacistema Sta.Along R. Culebra above Sta Isabel, in woods. A treelet, 2-3^m high. Bark
grayish white. 1st. (?) C.

4153

Filices

Along R. Culebra, above Sta Isabel, in Woods.

4154. *Piper*

Piperaceae

Along R. Culebra, above Sta Isabel, in forest. A treelet, 2^m high.

4155 *Niconia loucheophylla* Naud. Melastom. et.

4156

4157

4158. *Pentagonia magnifica* Krause

4159

4160. *Quarea culebreana* C. D. C. n. sp.

4161. *Inga spectatata* Willd.

4162. *Pithecolobium vahliianum* (D. C.) Benth.
Totacatallo

August 12-14, 1911.

Along R. Culebra, above Sta Isabel. A treelet, 2^m high. Cor. white.

Along R. Culebra, above Sta Isabel. A treelet, 4m. high.

Compositae Along R. Culebra, above Sta Isabel. Suffrutescent, 2^m high; fl. white

Rubiaceae Along R. Culebra, above Sta Isabel. A treelet.

Marantaceae Along R. Culebra, above Sta Isabel, in swampy places.

Meliaceae Along R. Culebra, above Sta Isabel. A tree.

Leguminosae Along R. Culebra, above Sta Isabel. A mid-sized, ramified tree, spreading over water. Fl. white.

Leguminosae Along R. Culebra, above Sta Isabel. A tree, ramified from base and spreading, growing only in close proximity to current water and with a powerful root system. Cauliflorous. Fl. pinkish white or pink.

4163 *Etalerium longiflorum* Cogn. Cucurbitaceae

4164 *Faramea occidentalis* (Jacq.) R. Rich. Rubiaceae

4165 *Machaonia rotundata* Griseb. Rubiaceae
(Mamucaballo) No spines nor thorns, not mamucaballo.

4166 Myrsinaceae

4167 *Amacoua corymbosa* H.B.K. Rubiaceae

4168 *Pavonia racemosa* Sw. Malvaceae

4169 *Cacoucia coccinea* Aubl. Combretaceae
= *Combretum coccineum* (Aubl.) Engl. & Diels

4170 *Lonicera hirta* L. Leguminosae

August 12-14, 1911

Along R. Culobra above Sta. Isabela. On herbaceous vine. Fl. yellow.

Along R. Culobra, above Sta. Isabela. A treelet, 4m high. Fl. white.

Along R. Sta. Isabela, near the mouth; a common shrub, 2-3m high. Fl. white.

Along R. Sta. Isabela, near the mouth, a low, thick bush, close to the water. Corolla claret-purple.

Along R. Sta. Isabela, near the mouth; a small, 4-5m high tree, with straight trunk. Barks black.

Along R. Sta. Isabela, near the mouth; a shrub with pale white flowers, open only early in the morning, and evening long stretches of the bank.

Along R. Sta. Isabela, near the mouth; a vine (?). fl. in long spikes, (the specimen being apparently a case of regression, with only a few fl. at base). Fl. scarlet red.

Along R. Sta. Isabela, near the mouth; a small tree. Fl. purple.

4171. *Montrichardia arborescens* (L.) Schott. Utracaceae
Castaña, fr. boiled in water with salt, edible

4172. *Wulffia baccata* (L.f.) O. Kuntze Compositae

4173. *Amaranthus*
Perejil de playa - Used as green vegetable, like spinach.

4174. *Euphorbia* Euphorbiaceae

4175. *Xyllinga peruviana* Lam. Cyperaceae

4176. *Piper marginatum* Jacq. Piperaceae
Jusaniello. I saw at Sta Isabela, the leaves used in the curatión of make tite, in conjunction with other leaves and roots (bedron among them)

4177. *Piper auritum amplifolium* C. DC. Piperaceae
Hinojo. Leaf used as "desinchadora", in cure of make tite. Odorous

4178. *Hirtella triandra* Sw. Rosaceae

August 12-14, 1911.

123

Along R. Sta Isabela, near mouth. Forms long stretches in low places. Stems up to 2-50 high.

Along R. Sta Isabela, near mouth. Very shrub.

Around Sta Isabela, on the beach (cordon littoral).

Around Sta Isabela, on cordon littoral, prostrated and covering large spaces.

Around Sta Isabela, on cordon littoral, in tufts.

Around Sta Isabela, on cordon littoral and at foot of hills. A treelet

Around Sta Isabela, at foot of hills. An herbaceous (?) treelet, up to 2.50 high.

Around Sta Isabela, in forest at foot of hills.

4179

Filices

August 12-14, 1911.

Around *Isla Isabela*, on *Clusia* trunks.4180. *Drymonia spectabilis* Mart.

Gesneraceae

Around *Isla Isabela*, a vine. Fl. whitish outside, pale purple with darker spots inside.4181. *Psychotria undata* Jacq.

Rubiaceae

Around *Isla Isabela*. A shrub; fl. white, berries red.4182 *Wedelia trilobata* (L.) Hitchc. Compositae
Clavellin de playaAround *Isla Isabela*, covering large stretches of *cordón littoral*.4183. *Gilbertia arborea* (L.) Merr. MalvaceaeAround *Isla Isabela*, a shrub with erect stems, on *cordón littoral*.4184 *Restonia macrocarpa* Hemsl. Apocynaceae

August 16, 1911.

Along *Fato R.* above *Monte de Dios*. A vine. Corolla white, purple tinged, with yellow throat.4185 *Compsoneura costaricensis* Warb. Lauraceae?Along *Fato R.* above *M. de Dios*. A tree? or shrub. Fl. yellow.4186. *Turnerfortia bicolor* Sw. BoraginaceaeAlong *Fato R.* above *M. de Dios*. A viny shrub. Fl. white.

4187 *Dolioscarpus punctatus* Standl. Dilleniaceae

4188 *Paullinia punicularis* Radlk. sp. n. Sapindaceae

4189 Urticaceae

4190 *Protium* Burseraceae

4191

4192 *Struthanthus polystachyus* R. & Pav. Loranthaceae

4193 *Dialyanthera longepedunculata* Pittier ~~Lauraceae~~ ^{Myristicaceae}

4194 *Cheobroma subincanum* Mart. Sterculiaceae
Cacao de Monte. Pulp acidulate, white.

August 16, 1911.

Along Fato' R. above N. de Dios. A epiphytic vine. Fl. white.
Fr. red?

Along Fato' R. above N. de Dios. A cauliflorous vine. Fl. white. Fr.
red.

Along Fato' R., above N. de Dios. A viny shrub with dense racemes of
green flowers.

Along Fato' R., above N. de Dios. A small tree. Fl. greenish yellow.
On 4191?

Along Fato' R., above N. de Dios. A small tree. Fl. greenish yellow.
On 4190.

Along Fato' R., above N. de Dios. Fl. yellow.

Along Fato' R., above N. de Dios. A mid sized tree. Fl. brownish yellow.

Along Fato' R., above N. de Dios. A tree, 30 cm. de diam., 28-30 m. high.
No flowers but at end of limbs. Fr. large, almost spherical, greenish
& brown tinged outside.

4195. *Aphelandra micans* Moritz Acanthaceae

4196. *Weberocereus Pittieri* Rose, n. sp. Cactaceae

4197. *Coccoloba* Polygmaeae

4198. *Aphelandra* ~~spec.~~ *Silichantha* DC. Acanthaceae
differt a *A. prismatica* foliis subserilibus et spica apice acutiore. An nova
species? - Linden.

4199. *Cytharexylum macranthum* Pittier n. sp. Verbenaceae
Tiquanero. Timber hard, but rough and little used

4200. *Heliconia* Musaceae

4201. *Rustia ferruginea* Standley Rubiaceae

4202. *Inophloeum armatum* (Wig.) Pittier Moraceae
Cucua' (cucua')

August 16, 1911.

Along Fato' R., near Dos Bocas. A shrub, 1.50-2^m high. Bracts scarlet;
corolla orange yellow.

Along Fato' R. near Dos Bocas. Epiphytic. Calyx & cor. yellowish white.
Anthers white. Stigma pink.

Along Fato' R., near Dos Bocas. A mid-sized tree. Racemes long, hanging.
Fl. green.

Along Fato' R., near Dos Bocas, in damp, shady place. Fl. white.

Along Fato' R., near Dos Bocas, in damp forest. A tree, 25-30^m high,
40^{cm} diam. at base. Trunk straight. Bark rugose. Heart dirty yellow.

Along Fato' R., near Dos Bocas, in damp shady forest. Scales scarlet.

Along Fato' R., near Dos Bocas. A small tree, cor. white.

Around Dos Bocas, Fato' Valley. A tree 12^m high, trunk straight.

130

4203

Blerro, Bledo.

Phytolaccaceae

4204

Solanaceae

4205. *Wasserviezia coccinea* Klotzsch

Rubiaceae

4206

Filiices

4207. *Heliconia*

Musaceae

*Maciza' montanero.*4208 *Lycianthes heteroclita*
(Sudtn.)

Solanaceae

Butler

4209

Gesneraceae

On account of the red maculae, the leaves are said to be a remedy in case of
difficult menses in women.4210. *Piper peracuminatum* B.

Piperaceae

August 16, 1911.

131

Around Dos Bocas, R. Fato' Valley. On gravelly beaches.

Around Dos Bocas, R. Fato' Valley. On gravelly beaches. Fl. white.

Around Dos Bocas, R. Fato' Valley. A treelet. Bracts red. Fl. orange yellow.

Around Dos Bocas, R. Fato' Valley, on shady, humid flats among *Phytelopus*

Around Dos Bocas, R. Fato' Valley, in shady places along River.

Around Dos Bocas, R. Fato' Valley, on beaches. A shrub 1.5-2' high. Fl. dirty
yellow.Around Dos Bocas. Epiphytic. Corolla tubulose, yellow with reddish purple
maculae at upper end.

Around Dos Bocas. A treelet in shady woods.

4211

Filices

4212

Filices

4213 *Renanthera densiflora* Staudl Zingiberaceae

4214

Marantaceae

4215

Marantaceae

4216. ⁹

Byssanthaceae

4217 *Kolobochilus leiorhachis* Lindau

Acanthaceae

4218 *Conostegia subhirta* DC Melastomataceae

August 16, 1911

Around Dos Bocas, R. Pato Valley; epiphytic.

Around Dos Bocas, R. Pato Valley. epiphytic.

Around Dos Bocas, R. Pato Valley, on shady, ^{perennial} damp, ~~inundated~~ ^{inundated} banks.Around Dos Bocas, R. Pato Valley, on shady, ^{perennial} inundated river flats.
Fl. white. Bracts purplish green.Around Dos Bocas, R. Pato Valley, on shady per. inund. river flats. Perianth
yellowish white.Around Dos Bocas, R. Pato Valley. Epiphytic. Perianth and whole inflo.
red, or yellowish red.

Around Dos Bocas, R. Pato Valley. Shrub 1-2' high. Fl. cherry red.

Around Dos Bocas, R. Pato Valley. A tuulet. Corol. pinkish white.

4219

Selaginellaceae

August 16, 1911.

Around Dos Bocas, R. Fato Valley. On rocks along river.

4220

Selaginellaceae

On rocks along river

Around Dos Bocas, R. Fato Valley. ~~At least in dark forest.~~ 2-50 high.4221. *Piper colonense* C. DC.

Piperaceae

Around Dos Bocas, R. Fato Valley. A treelet, 2-5 high, in dark forest.

4222

Filices

Around Dos Bocas, R. Fato Valley. On rocks along river.

4223

Around Dos Bocas, R. Fato Valley. A shrub or treelet. Cor. white.

4224

Filices

Around Dos Bocas, R. Fato Valley. Epiphytic.

4225

Filices

Around Dos Bocas, R. Fato Valley. Epiphytic.

4226

Palmae

Around Dos Bocas, R. Fato Valley, in shady, damp forest. 1' high.
Stipe 35-40 cm.

4227

Araceae

August 16, 1911.

Arund dos Bocas, R. Fato Valley. Epiphytic.

4228. *Philodendron grandipes* Krause.

Araceae

Arund dos Bocas, R. Fato Valley. Terrestrial. On river flat.

4229

Lactaceae

Arund dos Bocas, R. Fato Valley. Epiphytic. Tent living

4230. *Phytalephas*

Fato Valley, on flat or river bottom. Notes.

4231. *Paspalum paniculatum* L.

Graminae

August 18, 1911

Cristobal, on low flats along French Canal.

4232. *Paspalum vaginatum* Sw.

Graminae

Cristobal on flats, period. inundated, along French Canal.

4233. *Sporobolus virginicus* Kth.

Graminae

Cristobal, on periodic. inundated flats along French Canal.

4234. *Timbristylis spathacea* Roth.

Cyperaceae

Cristobal, on periodic. inundated flats, etc.

4235. *Fimbristylis spadiacea* (L.) Vahl.

Cyperaceae

August 18, 1911.

139

Cristobal, on inundated flats along French Canal.

4236. *Eleocharis capitata* (L.) R. Br.

Cyperaceae

Cristobal, on inundated flats along French Canal

4237. *Attalea cohune* Mart. ? PalmaeBanghé or Vangué. Acidulated water sought for and enjoyed by children, as is the meat. Caparo (P^{to} Ochalá & Bolívar).4238. *Vismia guianensis* (Aubl.) Pers. GuttiferaeAug. 23^dLoma de la Gloria, near Nombre de Dios. Fr. only. Acaulis. Fruit bunches erect. Photo (5x4 Habitus; plates germination & bunch) - Fr. sent to Mr. Cook. Leaves about 6m. long, 2^m 82 from base to first pinna. Fruit often 2-celled. 1-3 bunches to each plant. Other leaf: petiole = 2.85; lamina 3.82; total length 5.97. Pinnae: basal 36-40cm.; median 70-74; terminal 33-35. Entire: lanceolate. Around Fato. A treelet4239. *Piper cabagranum* C. DC., forma

Piperaceae

Around Fato, in shady forest. A treelet.

4240. *Piper persubulatum* C. DC.

Piperaceae

Around Fato, in shady forest. A treelet.

4241. *Piper tuberculatum* Jacq.

Piperaceae

Around Fato, in shady forest. A treelet.

4242. *Styrax panamensis* Standley

Styracaceae

Around Fato, in shady forest. A small tree, 8-10m. high.

4243. *Oldenlandia herbacea*

Rubiaceae?

Sandy meadows around Fato'. Creeping on the ground. Fl. pinkish white.

4244

?

Loma de la Gloria, near Fato'. A vine, woody. Fl. small, yellowish. Fr. cherry or yellowish red when ripe.

4245. *Wulffia baccata* (L.f.) Kunze.

Compositae

Loma de la Gloria, near Fato'. A viny shrub. Fruit of n° 4172.

4246. *Vitis*

Vitaceae

Loma de la Gloria, near Fato'. A vine. Fl. yellowish green.

Bejuco de agua

4247.

?

Loma de la Gloria, near Fato'. A vine. Fl. yellowish.

4248 *Bertiera guianensis* Aubl. BoraginaceaeLoma de la Gloria, near Fato'. A treelet, 2-3^m high. Fl. white.4249. *Calisia nervosa* Radl. sp. n.

Sapindaceae?

Loma de la Gloria, near Fato'. A treelet, 2^m high, unbranched, pyramidal, the basal leaves being much larger than the upper ones.

4250

?

Loma de la Gloria, near Fato'. A mid-sized or large tree. Berry bluish black at maturity. Fl. small, yellowish.

August 23^d, 1911

4251. *Manicaria saccifera* Gaertn. Palmae

Guágará. The leaf is said to be the most lasting among those used as thatch on this coast, roofs 40 & 50 years never having needed repairs. Pigs feed on the fruits. Cabeza de negro en Pto Obaldia & Bolívar.

4252. *Orinococcus polydactylus* Palmae

Pina-pina. Apparently without use

4253. *Cassia baccilaris* L.

Leguminosae

4254. *Piper peracuminatum* HBK.

Piperaceae

4255 *Myzinda eucymosa* L.f. Hippocrateaceae

Hippocrateaceae

4256

Cyperaceae

4257 *Conocarpus erectus* L.

Combretaceae

Saragoza. The wood is used for "las curvas de los botes, as is to a lesser extent that of the *uvero* or *Coccoloba uvifera*.

4258. *Adenocalymna foveolatum* Bureau

Bignoniaceae

August 24, 1911

Along Rio Indio de Fato. Stipe 1-4 m high, smooth, annulated at base, covered above with the scale-like bases of the fallen leaves. Base of leaves deep pink. The collected specimen is the one nearest to bud. 4 hanging, mature bunches, and 4 erect spikes of flowers in their tissue-like sheath on individual pedicels. Single leaf: petiole \pm 1.50, lamina 3m. 40. Total length 4m. 90.

Along Rio Indio de Fato. Stipe 2-3 m high. 3 bunches (2 fr. 1 fl.) on tree.

Bunches of fruits hanging. Flowers spikes erect. Leaves 2.80 to 3m. 00 long. Petiole 105-115 cm.; leaf blade ovate, 1.75-1.85 long; 95-100 cm. broad. Basal segments .80m. long; terminal segments 28 cm.

Along Rio Indio de Fato. A treelet with flat crown, 2.5 high, fl. pale yellow.

Along R. Indio de Fato. A treelet, 2-3 m, in shady woods.

Along R. Indio de Fato. A treelet, with spreading habit. Fl. greenish yellow, or reddish. Cherry red.

Along the sea beach at R. Indio de Fato. Fato'

Along the sea beach at R. Indio de Fato. Fato'

On forest outskirts at R. Indio de Fato. Fato' fl. pale purple

4259. *Stenotaphrum secundatum* P. K.

Graminae

4260. *Paspalum conjugatum* Berg.

Graminae

4261. *Paspalum vaginatum* Sw.

Graminae

4262. *Aspasia epidendroides* Lindl.

Orchidaceae

4263. *Peperomia obtusifolia* A. Dietr. forma A19, C. DC.

Piperaceae

4264

Orchidaceae

4265. *Epidendrum florijugum* Rodriguez

Orchidaceae

4266. *Epidendrum leucocardium* Schltr. sp. nov.

Orchidaceae

Aug. 24, 1911

Along the beach at R. Indio de Fato.

Along the beach at R. Indio de Fato.

Along the beach at R. Indio de Fato.

On trunks in the mangrove bush at Rio Indio de Fato.

Rio Indio de Fato, epiphytic in mangrove forest along sea shore

Rio Indio de Fato, epiphytic in mangrove forest along seashore. Fl. greenish with purple striae.

Rio Indio de Fato, epiphytic in mangrove forest along seashore. Fl. green.

Rio Indio de Fato, epiphytic in mangrove forest, quite close to seashore. Sepals and intro petals purplish yellow to yellow. Labellum cream white with bright yellow spot at throat.

146

4267. *Brassavola venosa* Lindley.

Orchidaceae

August 24th 1911.

147

Rio Indio de Fato, epiphytic in mangrove bush close to seashore. Fl. white, with the long sepals yellow.

4268. *Rhizophora Mangle* L.

Rhizophoraceae

Rio Indio de Fato, one of the mangrove (*Rhizophora*?). Sometimes a high tree. Fl. yellow.

Mangle Colorado. The young shoots are used to dye in red fishing cords and light fabrics. The color is everlasting.

4269. *Lonchocarpus amphifolius*

Leguminosae

Rio Indio de Fato, on "cordón littoral". A large tree.

4270. *Machaonia rotundata* Griseb.

Rubiaceae

Rio Indio de Fato, along beach. A treelet 2-3^m high. Fl. white.4271. *Piper pallidibracteum* C. & G.

Piperaceae

Rio Indio de Fato, characteristic of the near-sea belt. A low shrub.

4272. *Enallagma obovata* (Miers) H. Baill.
Cutumito = cucurbitina

Bignoniaceae

Rio Indio de Fato, along the beach. A low tree with butt stems and spreading habit. Fl. greenish or purplish yellow. Fr. small (\pm 8 cm. diam.).4273. *Stylogyne laevis* (Aubl.) Mez

Myrsinaceae

Rio Indio de Fato, on "cordón litt." in mangrove forest. Fl. pink. A shrub.

4274. *Hippocratea volubilis* L.

Hippocrateaceae

Rio Indio de Fato, along beach in mangrove formation. A vine. Fl. greenish yellow. Note the way the vine is held up, by the floral twigs twisting around branches.

Monday

August 28th 1911.4275 *Machaonia rotundata* Griseb

Rubiaceae

Puerto Obaldia, along beach.

4276

Palmae

Puerto Obaldia in forest. Stems 1.50-2 m high.

4277

Araceae

Puerto Obaldia, in forest. ~~Epiphytic~~ Terrestrial! perhaps accidentally.4278 *Gilibertia arborea* (L.) March

Anacardiaceae

Puerto Obaldia, in forest. A small, unbranched tree.

4279

Borraginaceae

Puerto Obaldia, in forest. A shrub. Fl. white. Infl. scirpoid.

4280 *Aphelandra tetragona* (Vahl) Nees.

Acanthaceae

Puerto Obaldia, in forest. A shrub. Fl. red. ~~or~~ scarlet.

Resucitado.

4281 *Justicia witzliputzli* Lindau.

Acanthaceae

Puerto Obaldia, along river, in shady places. Fl. purple.

4282 *Maspigia glabra* L.

Malpighiaceae

Puerto Obaldia, in forest. A small tree. Fl. purplish pink.

150

4283

Tuesday

Filices

August 29th 1911.

Port Obaldia, in clearings.

151

4284. *Panicum trichoides* Sw.

Graminae

Port Obaldia, in clearings

4285. *Heliconia*

Musaceae

Port Obaldia, in forest of the back hills. Stems \pm 2m. Perigon yellow,
bracts orange red.

4286

Hymenophyllum

Port Obaldia, in humid forest of the back hills.

4287

Solanaceae

Port Obaldia, in forest of the back hills

4288. *Piper*

Piperaceae

Port Obaldia, in forest of the back hills

4289

?

Fruta de hicoitea. Seeds enveloped in a sweet, edible pulp.

Port Obaldia, in forest of the back hills. fr. nut-like, ridged & pitted, orange
yellow, containing 2 nuts in a white pulp. Fr. of n. 4291?

4290

Port Obaldia, in forest of the back hills. Fl. tubulose-campylate, purplish
Epiphyte

4291

?

? ? ?

4292

Burmanniaceae

August 29th 1911.

Port Obaldia, in forest of the back hills. A shrub; fl. yellowish.

Fl. of n° 4289? in *incertae*

4293

Burmanniaceae

Port Obaldia, in forest of the back hills. Larger than the following.

Stems dark purple. Corolla tube purplish, lobes violet, with a white ring and dark lines at throat. Style \pm equal to tube

Port Obaldia, in forest of the back hills. Stems white, more slender.

Tube white, lobes pale blue. Style \pm equal to tube

4294

Burmanniaceae

Port Obaldia, in forest of the back hills. Fl. yellow. Saprophyte

4295

Burmanniaceae

Port Obaldia, in forest of the back hills. Fl. starlike, white. Saprophyte.

4296

Moraceae

Port Obaldia, in forest of the back hills. Fr. yellow, containing several nutlets.

4297

Filices

Port Obaldia, in forest of the back hills. Common.

4298. *Pentagonia Pittieri* Standley
Carbonero. Used as fuel

Rubiaceae

Port Obaldia, in forest of the back hills. Petioles broadly winged at base with bloody red wings. Bracts pale green, with red margins. A shrub or treelet, up to 3m. high.

4299 *Capricum baccatum* L. Solanaceae
Cuna: = kipur; ajillo

4300 *Tetrathylacium johansenii* S. Rosaceae

4301 *Piper sperdinum* L. & B., forma Piperaceae

4302 *Piper* Piperaceae

4303 *Miconia triplinervis* R. & H. Melastomataceae

4304 Melastomataceae

4305 Palmae

4306 Burmanniaceae

August 30th 1911.

In clearings about Port Obaldia. Fl. white. Fr. red. Gregarious

Port Obaldia, in forest. A large tree, about 30^m high.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A shrub.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A shrub.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A treelet

High ravines of the Quebrada de Armaligua, R. Miel basin. A treelet or rather shrub. Calyx pink, corolla pinkish white. St. yellow.

High ridges at the headwaters of Rio Miel. Stems \pm 4m. high, smooth.

Hills back of Puerto Obaldia. Epiphyte. Corolla large, funnel-shaped; tube yellowish white, lobes violet. Style much shorter than tube.

4307

Cyperaceae

4308

?

4309

Filices

4310. *Clulacocarpus completens* Pitt.

Myrtaceae ?

Gasparilla. Wood very hard

4311 *Stylogynen laevis* (Verst.) Mez

Myrsinaceae

4312. *Carludovica*

Lycopodiaceae

4313. *Clavija Mezii* Pittier sp. n.

Echeophorastaceae

4314. *Paspalum conjugatum* Berg.

Graminae

August 30th 1911.

Hills back of Puerto Obaldia.

Hills back of Puerto Obaldia

Hills back of Puerto Obaldia

Hills back of Puerto Obaldia, a ^{mid-sized tree, about 25 m. high.} ~~shrub~~ ^{tree}.
 trunk straight, seldom over 35 cm. at base. Bark smooth, grayish. Pet. 5, pink. St. 10,
 calyx 5 lobed, persistent. Alcohol mat. - Wood sp.

Hills back of Puerto Obaldia. A treelet. Fl. pink

Hills back of Puerto Obaldia. ^{by accident?} ~~Cerastium~~. Rept. fruit orange,
 sweet scented

Hills back of Puerto Obaldia. A treelet. Fl. orange red. Stam. 4?

Port Obaldia, in clearing. Holoniferus

158
4315

Thursday

Filices

August 31st, 1911

159

Around Port Obaldia, in forest.

4316.

?

Around Puerto Obaldia, in the forest near the sea-shore. A small, depressed tree.
Fl. greenish.

4317 *Salacia*

?

Hills back of P^{to} Obaldia. A vine.

4318. *Mimusops darienensis* Pittier, sp. nov.

Sapotaceae

Guaymillo Negro. La el balata y ademas una madera muy dura, usada para piezas. De mucha duracion, y medianamente fina.

Hills back of P^{to} Obaldia. A large tree, 40-50^m high, with three or four rounded powerful roots and no wings. Trunk straight, up to 1.50 diam. at base, covered with a grayish brown scaly bark. Crown depressed and spreading, with strong, horizontal limbs. One of the most abundant and characteristic trees of the forests in the lower hills.
Fl. white. Fr. with 5 seeds (?) about 5 cm. in diam. Wood. Exterior crown ± 20 acute-lobed into 6 lobes, acuminate, ascending. Stamens 6, staminodes 6, alternating ???

4319

Rhamnaceae

Hills back of P^{to} Obaldia. A mid-sized tree.

4320. *Symphonia globulifera* L. fil.

Guttiferae

Cerillo. Gives an abundant, milky, yellow latex, used in the cure of sores and also to ink the straps of cloth which are then used as candles.

Hills back of P^{to} Obaldia. A tree 40-45^m high. Trunk straight, 1.20 diam. at base, hollow, covered with a scaly brown bark. Crown elongate, limbs short. Flowers dark pink (alcohol sp.). Base of trunk with small wings. Wood

4321

Papontae

~~Negundo~~ Porto Rico. Used for thatching

Hills back of P^{to} Obaldia. Stem not over 30 cm.

4322 - *Gyranthera darienensis* Pittier

Sterculiaceae

Hills (2^o) back of P^{to} Obaldia. A tree about 25^m high. Trunk straight, with flat "bambas". Fl. white. Wood white, soft. Peduncles very long, often geminate.

4323. *Phytalephas**Phytalephantaceae*4324. *Swartzia panamensis* Benth.
Cornudo*Leguminosae*

4325

*Selaginell**Selaginellaceae*

4326

*Guacamayo macho**Leguminosae*4327. *Reuealvia densiflora* Standl
Mata-Andrea *Zingiberaceae*4328. *Sapium jamaicense* Swartz
Ñipe*Euphorbiaceae*4329. *Odontadenia speciosa* Benth. *Asclepiadaceae*

4330

*Cordia dera**Palmae*Sept. 2^d, 1911.

Around Puerto Obaldia, everywhere. Length 4.60. Pinnae about 70 on each side, beginning almost from base. Basal pinna 32 cm, median 68 cm. long.

Around P. Obaldia. A small tree, usually bent and irregular. Fl. yellow. Often a high tree, as in the plains of Tucurti, where I saw one 40 cm. diam at base, branching from about 3 m. in limbs ascending very close to the main axis; the whole tree was about 25 m. high.

Around P. Obaldia, along River.

Port Obaldia, along River. A mid-sized tree. Fl. white.

Port Obaldia, along river. Fl. white, calyx pink or bloody red.

Hills back of Port Obaldia. A large tree, up to 30 m and 1 m in diam. Trunk straight. Crown irregular. Laticiferous.

Hills back of Port Obaldia. A vine flowering on top of high trees. Laticiferous. Fl. yellow.

Hills back of Port Obaldia. Stems 2-3 m. high. Panicles racemose.

Amarantaceae

Sept. 2, 1944.

Hills back of Pto Obaldia. A vine.

4332. *Chaetochloa amplifolia*
Rato de caballo

Graminae

Cultivated places around Pto Obaldia

4333 *Gurama*
Beyico ven-te-veo.

Cucurbitaceae

Hills back of Port Obaldia, in forest. A vine, high climber. Growth orange yellow, belly red.

4334. *Bauhinia ligulata* Pittier
Casco de vaca

Leguminosae

Hills back of P^{to} Obaldia. A tree, up to 40' high and 80 cm. in diam. Trunk straight. Bark creamie longitudinally fissured. Brs div. Fl. lilacines.

4335
Jasminillo

Rubiaceae

Hills back of P^{to} Obaldia. A shrub. Fl. small, lilacish white. Berry blue

4336. *Brosimum*
Guaimaro

Moraceae

Hills back of P^{to} Obaldia. A mid-sized or large tree, up to 25 m high and 60 cm. in diam. Bark grayish, smooth. Crown irregular, depressed. Wood. Laticiferous.

4337
Yaya. No use.

Anonaceae

Hills back of P^{to} Obaldia. A mid-sized or small tree, 30 cm. diam. about 10 m. high, trunk straight, bark gray, smooth. Fl. large yellowish.

4338. *Eschweilera panamensis* Pittier
Majagua de Indio

Lecythidaceae

Hills back of P^{to} Obaldia. Up to 40 m. diam. 30 m. high. Bark leuculent creamie, grey. Brs div. Fruit all together.

4339 *Soliscarpus punctatus* Standl.

4340 *Cespedesia macrophylla* Seem.

Ochnaceae

4341 *Castilla fallax* O. F. Cook.
Caucho macho

Moraceae

4342 *Jacquinia nemophila* Pittier sp. n.

Theophrastaceae

4343 *Leqythis* ~~amplata~~ *Meis?*

Lecythidaceae

Olleto i fr. - olla de mero. La madera es tan dura como duradera, y se asegura que es la mas resistente en agua dulce, salada y en el mar. Se usa para hacer canchales en las lomas bajas a lo largo de la costa.

4344.

Bombacaceae

4345 *Brosimum Galactodendron* Don.
Cabo de leche

Moraceae

4346 *Polystachya luteola* Kth.

Orchidaceae

Sunday Sept. 3rd 1911.

Hills back of Puerto Obaldia. A high slender.

Hills back of Puerto Obaldia. A large tree, 60 m. at base and about 30 m. high. Brown irregular. Fl. bright yellow. Selected the smaller specimens, as the racemes and leaves are often enormous.

Hills back of P^{to} Obaldia, from foot to upper station. A tree up to 1 m. in diam and 30 m. high.

^{Plum} Valley of Tucurte, near P^{to} Obaldia. A treelet 3 m high, pyramidal. Fl. yellow. Fr. yellow gold. Seed surrounded with a sweet pulp. Fruit in alcohol
low jar.

Hills of Tucurte, near Port Obaldia - Diameter 1 m 50. Tronc droit, Hauteur to white
talle de l'arbre 25-40 m. L'arbre tres-croissant longitudinalement; noisetre; auhier 5-10 cm. thick, coeur orangeatre, tres dur.

Hills of Tucurte, near Port Obaldia. A mid-sized tree.

Hills of Tucurte, near P^{to} Obaldia. A tree about 25 m. high. Bark grayish white, smooth or verrucose. Diam. 40 cm.

Hills of Tucurte near P^{to} Obaldia. Epiphytic on *Lecythis*. Fl. yellow.

Sept. 3, 1911.

4347

Filices

Hills of Tucurti near Port Obaldia. Very common on slopes and in cool gorges.

4348 *Piper sperdinum* C. DC.

Piperaceae

Hills of Tucurti near Port Obaldia. In gorges, a low shrub.

4349

Euphorbiaceae

Hills of Tucurti near P^{to} Obaldia. A small tree, 4^m high.

4350

?

Hills of Tucurti near P^{to} Obaldia. A vine, fl. whitish yellow.

4351

Burmanniaceae

Hills of Tucurti near P^{to} Obaldia. Ramose; stems purplish yellow.

4352

Cyclanthaceae

Plain of Tucurti near P^{to} Obaldia. Epiphytic. Fr. purplish red.

4353

Molenillo

Sterculiaceae

Plain of Tucurti near P^{to} Obaldia. A small tree, \pm 10^m high, pyramidal.

4354

Apocynaceae

Plain of Tucurti near P^{to} Obaldia. A small tree, 3^m high. Fl. & fr. golden yellow.

4355. *Macrolobium floridum* Karsten.

Leguminosae

4356

Filices

4357. *Lucuma*

Sapotaceae

4358. *Rollinia Pittieri* Safford

Anonaceae

4359 *Phallosadenia paludosa* (Zahl) Miers
Campanilla de playa

Apocynaceae

4360 *Thevetia nitida* (HBK.) DC.
Lavaferro

Apocynaceae

4361

Malvaceae

Majagua de playa

4362. *Enallagma obovata* (Miers) H. Baill.
Tutumuelo

Bignoniaceae

Sept. 3rd, 1911

Plain of Tucurti, near Pto Obaldia. A mid-sized tree, with smooth bark, ~~had~~ irregular branching. Cauliflorous, or at least partly. Petals very numerous, pinkish white, frilled on the margin. Wood
Along Tucurti R. near Pto Obaldia. Arborescent, about 2^m high.

Along Tucurti R., apparently a common tree. Trunk straight, bark smooth. About 30^m high. Wood hard. Fl. yellowish white. Fr. yellow when ripe.

Plain of Tucurti near Pto Obaldia. A mid-sized tree, about 25^m high. Fl. 3-winged

Pto Obaldia, along beach.

Pto Obaldia, along beach

Pto Obaldia, along beach

Pto Obaldia, along beach.

Sept.

4th, 1911.

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44 4363 *Stigmaphyllon ellipticum*
(HBK) Juss.

Malpighiaceae

P^{to} Obaldia, along the beach. A vine, fl. yellow.

44 4364 *Corygium foetidum* L.

Umbelliferae

P^{to} Obaldia, in meadows. Apparently common.

44 4365 *Scoparia dulcis* L.

Scrophulariaceae

P^{to} Obaldia, in open places. Common.

44 4366 *Piper Obaldianum* C. DC.

Piperaceae

P^{to} Obaldia. Common in clearings. A low shrub.

44 4367 *Oryza sativa* L.

Arroz de secano

Graminae

P^{to} Obaldia. Cultivated.

44 4368 *Meibomia adscendens* (D.C.) The
Cariello

Leguminosae

P^{to} Obaldia. In clearings. Fl. lilac

44 4369 *Eupatorium microstemon* Cass.

Compositae

P^{to} Obaldia. A weed. Fl. purple

44 4370 *Pilea*

Urticaceae

P^{to} Obaldia, in shady, cultivated places.

172

4371. *Panicum pilosum* Sw.

Graminae

Sept. 4, 1911.

173

Pt. Obaldia, in clearings.

4372. *Dichromena radicans* Loh. & Cham. Cyperaceae

Pt. Obaldia, in clearings

4373 *Erechtites hieracifolia* (L.) Raf. Compositae

Pt. Obaldia, in clearings

4374. *Panicum hirsutum* Sw.

Graminae

Pt. Obaldia, in clearings.

4375. *Panicum fasciculatum* Sw.

Graminae

Pt. Obaldia, in clearings

4376 *Melothria guadalupensis*
(Spreng.) Cogn

Cucurbitaceae

Pt. Obaldia, in clearings.

4377. *Borreria ocyroides* (Burm.) D.C.

Rubiaceae

Pt. Obaldia, in cultivated fields. Fl. white

4378. *Solanum*

Solanaceae

Pt. Obaldia, in clearings, fields, etc. Fl. white

Tuesday

Sept. 4-5, 1911.

194
4379 *Sicydium tannifolium* (HBK.) Cogn.

195
Port Obaldia, in clearings. A herbaceous vine. Fl. small, white.

4380. *Piper auritum amplifolium* B. & H.

Piperaceae

Port Obaldia, common up to 2000' from seashore and gregarious.

4381. *Lida rhombifolia* L.

Malvaceae

Pt Obaldia, in meadows. Fl. yellow.

4382. *Lida rhombifolia* L.

Malvaceae

Pt Obaldia, in waste places. Fl. white.

4383. *Echinochloa spectabilis* Link.

Gramineae

Armila, along inner bayou. A tall, ascending grass. Stems 3-4' long.

4384. *Memecops darinenensis* Pittier, sp. nov. Sapotaceae
Nispero

On the hills between Obaldia & Armila.

4385. *Psychotria uliginosa* Sw.

Myrsinaceae

On the hills between Obaldia & Armila. A low shrub (0.30-0.40 high).
Fl. small, pink. Berries red.

4386. *Coussapora brevipes* Pittier

Moraceae

On a Nispero n° 4384, on hills between Obaldia & Armila.

4 4387

Clusiaceae

Epiphytic on Nispero n° 4384. Btw. Obaldia and Armila.

4 4388. *Rourea*

?

On hills between Obaldia and Armila. Fr. red.

4 4389 *Kohleria tubiflora* (Cav.) Gesneraceae
Haust.Along rocky shore near Jucurti, on the way from Obaldia to Armila.
Fl. red brick4 4390. *Lopezia*? *Rivina laciniata*Along rocky shore near Jucurti, on the way from Obaldia to Armila.
Fl. small, pinkish white.4 4391. *Sporobolus*

Port Obaldia on "cordon littoral".

4 4392. *Sporobolus*

Port Obaldia, on "cordon littoral". Fl. pinkish purple

4 4393. *Rheedia magnifolia* Pittier
Madroño

Rocky beach, in forest, west of Obaldia. See note on file

4 4394. *Eschweilera reversora* Pittier

Seythidaceae

Pains of El Armila River. A large tree, nearly 80 cm. in diam.,
with very hard wood. No flowers.

178
4394

Clusiaceae

Sept. 8th 1901.

479

Between Otaldia and the mouth of Armaligua, on rocks. Fl. dark purple. A shrub, covering face of rock.

4395 *Vigna repens* (L.) D. Kunze

Leguminosae

Between Otaldia & mouth of Armaligua, on coral beach. Fl. yellow, in a long erect peduncle.

4396. *Piper pallidibracteum* C. DC.

Piperaceae

Between Otaldia & mouth of Armaligua, in forest. A treelet.

4397

?

Between Otaldia & mouth of Armaligua, in forest. Fl. green? A treelet, 2m. 5 high.

4398. *Philodendron* (indet.)

Araceae

Between Otaldia & mouth of Armaligua, very abundant in forest along the foot of the hills. Spathe carminate; among the legs one garapata, in many specimens.

4399 *Schwachsea*
euphroides (Benth.) Cogn

Melastomataceae

Between Otaldia & mouth of Armaligua, on coral beach. Fl. pink.

4400

Portulacaceae

Between Otaldia and mouth of Armaligua. On coral beach. Fl. pink or white

4401. *Fimbristylis spadiacea* (L.) Vahl. Cyperaceae

Between Otaldia and mouth of Armaligua. On coral beach.

4402. *Pamflora suberosa* L.?

Pamfloraceae

Between Oaldia & mouth of Armaligua. Fl. small, green. near
hush.

440

4403. *Melanthera*

Compositae

Between Oaldia & mouth of Armaligua. Fl. white.

4404. *Heliconia*

Musaceae

Around Oaldia, in swampy bushes. 2m. high.

4405. *Cassia baccilaris* L.

Leguminosae

Around Oaldia, in bushes along track. A treelet. Fl. yellow.

4406. *Belamcandula grandiflora* Jacq.

Apocynaceae

Around Oaldia, a shrub or a treelet with flat leaves. Fl. yellow.

4407

?

Leguminosae

^{Sperdi}
On cordun littoral at mouth of Lucurte. Fl. purple.

4408. *Brownea Rosa-de-Monte* Berg.

Leguminosae

Olisa; Olisa-macho

Mountain between Lucurte & Armila. A treelet. Fl. ^{pink} on a lateral branchlet 30cm. above ground.

4409. *Calathea*

Marantaceae

Pleiostachya pittieri Roub.

Mountain between Lucurte & Armila. Fl. white.

4 4410 - *Psychotria insignis* Standley

Rubiaceae

Mountain between Jucarti & Armila. Fl. greenish white.

4 4411

Palmae

Mountain between Jucarti & Armila. Stem slender, 1.50-2m. high.

4 4412

Filix

Mountain between Jucarti & Armila. Sub-arborescent.

4 4413

Filices

Mountain between Jucarti & Armila

4 4414. *Anthurium*

Araceae

Mountain between Jucarti & Armila. Epiphytic. Spathe green.

4 4415

Filices

Mountain between Jucarti & Armila.

4 4416. *Desmanthus*

Palmae

Mountain between Jucarti & Armila. Note the apex of leaves.

4 4417

Filices

Mountain between Jucarti & Armila.

184

4418. *Prosimium galactodendron* Sm.

Palo de leche

Sept.

Moraceae

8, 1911.

185

Mountain between Jucurti & Armila. A tree 45m. in diam.
20m. high. Fr. in alcohol, yellow when mature.4419. *Uragoga phoenicea*

Rubiaceae

Mountain between Jucurti & Armila. A shrub.

4420

Rubiaceae

Mountain between Jucurti & Armila. A treelet. Fl. azure
blue

4421

Filiaceae

Mountain between Jucurti & Armila.

4422. *Uragoga tomentosa*

Oreja de mula (Zona)

Rubiaceae

Mud between Jucurti & Armila. A shrub.

4423. *Psychotria*

Rubiaceae

Mountain between Jucurti & Armila. A treelet, 2.5 high.
Fl. greenish.4424. *Lecythis armilensis* Pittier.

Lecythidaceae

Hill between Sperdi (= Jucurti). A large tree, very similar in bearing
and dimensions to n° 4343, but with a distinct pygid.

4425

Sept. 28, 1911.

Cactaceae

Near Matachin, C. Z. Given by Mr Verner.

186

4426 - *Gustavia parvifolia* Pittier sp. nov.
Bejuco de Lucá.

Sept. 12, 1911.
Lecythidaceae

Loma de la Gloria, near umbré de Dios. Fr. of no 4104.

187

4427. *Paullinia fimbriata* Radlk.

Sapindaceae

Loma de la Gloria. A high climbing vine. Fl. white.

4428. *Tropidium polystachya* (Sw.) Ames

Orchidaceae?

Around Obaldia, Sept. 8, 1911.

4429. *Psidium Guayaba pyriferum* L.

Sept. 19-22, 1911.
Myrtaceae

Around Gamboa. See notes on Photographic cover.

4430. *Psidium Guayaba pyriferum* L.

Myrtaceae

Around Gamboa. " " " "

4431. *Aristolochia*

Around Gamboa. Labellum hairy, yellow, densely spotted in brown.

4432. *Catasetum maculatum* Rth.

Orchidaceae

Around Gamboa on a palm-tree (fan-palm, indigenous). Fl. yellow, or brownish yellow.

4433. *Xylinia brevifolia* Rottb.

Cyperaceae

Matachin, in meadows.

Sept. 19-22 1911

188

4434. *Cyperus sphacelatus* Rottb. Cyperaceae

Around Matachin, in meadows.

4435. *Paspalum fasciculatum* Willd

Graminae

Around Matachin. Common along the Canal and used for experimental plantation on its sides.

4436. *Paspalum microstachyum*

Graminae

Around Matachin, along railroad.

4437. *Elatium longiflorum*
Cogn

Cucurbitaceae

Around Gamboa, in bushes. Fl. golden yellow.

4438. *Meibomia supina* (Sw.) Britton

Leguminosae

Around Gamboa, in meadows. Fl. pale pink. Stems erect.

4439. *Meibomia axillaris* (Sw.)

Leguminosae

Around Gamboa, in meadows.

4440. *Syntherisma sanguinalis* Dulac Graminae

Between Gamboa and Matachin, along railroad.

4441. *Laguncularia racemosa* Gaertn.

Combretaceae

Between Borozul & Panama, in swamps.

189

4442. *Vochysia ferruginea* Mart.

Vochysiaceae

4443. *Tribulus maximus* L.

Zygophyllaceae

4444. *Chaetochloa imberbis* Scribn.

Graminae

4445. *Justicia comata* Sw.

Acanthaceae

4446

Venenillo teton. No use

Solanaceae

4447. *Randia formosa* (Jacq.) Schum.

Rubiaceae

4448. *Malache panamensis* Standley

Malvaceae

4449. *Solanum scaberrimum* Vahl*Urania Gato*

Solanaceae

Sept.

6. 1911.

hills around Corrojal. A medium sized tree, 10-12m. high.

With depressed crown. Fl. yellow, very numerous, odorless (violet or near).

along railroad between Corrojal & Panama. Fl. yellow with dark spot
bottom, bright open in morning.

around Culebra, in waste places.

around Gamboa, in marshy places. Fl. pale purple.

October

1911

Shrub, in meadows. Fl. purple, small. Fr. yellow.

Shrub, in woods. Fr. ovoid, striped white & green.

Shrub, along hedges. Fl. white. Plant \pm 60 cm. high, growing
in bunches.

Shrub, in pastures and around houses. Shining. Fl. purple.

4442 - *Vernillio tetra* - Flou. purple, small.
Fruit yellow - No seed.

4443 - *Rubra* - Fruit oval, striped white
& green.

4444 - *Violacea* - Fl. white. Plant 60 cm.
high growing in woods.

4445 - *Solanum* - Branches - Climbing,
fl. purple.

October 4, 1911.

- 4 4450. *Peperomia pellucida pygmaea* Mig. *Peperoniaceae* Chepo, around houses, common.
- 4 4451 *Amarantaceae* Chepo, around houses, common
4451a. *Borreria cymoides* (Burm.) D.C. *Rubiaceae*
- 4 4452. *Axonopus compressus* Beauv. *Graminae* Chepo, in grassy places about town.
4453. *Paspalum notatum* Feij. *Graminae* Chepo, in streets and grassy places about town.
- 4 4454 *Nyctis verticillata* Jacq. Chepo, in waste places around houses. Fl. white. Plant up to 1.5 m.
n.v. Galea - Infusion usada para curar indigestiones
- 4 4455. *Scoparia dulcis* L. *Scrophulariaceae* Chepo, around houses. Fl. white
n.v. Escobilla menuda - Febrifugo
- 4 4456. *Cassia occidentalis* L. Chepo, around houses. Tree, about 1.20 high. Fl. yellow. Foliage ~~thin~~
^{large} *Chapillo* - Vermifugo. Las vainas tiernas sirven a los niños en sus juegos dark green, for purgative.
bajo el nombre de plátanos, y las flores las llaman ~~plát~~ palomitas.
- 4 4457. *Microtea debilis* Sw. Chepo, around houses.
Hierba de sapo. Infusion para cortar corrimiento

Oct. 4 1911.

- | | | |
|-------------------------------------------------------------|----------------|---------------------------------------------------------------------------------|
| 4 4458. <i>Euphorbia</i>
Hierba de pollo. | | Chepo, around houses. |
| 4 4459. <i>Evolvulus</i> | Convolvulaceae | Chepo in stony places about houses. Open all day long. Fr. white. |
| 4 4460. <i>Pilea</i> | Urticaceae | Chepo, on old walls about town |
| 4461. <i>Dactyloctenium aegyptium</i> Richt. | Graminae | Chepo, on old walls about town |
| 4 4462. <i>Paspalum microstachyum</i> | Graminae | Chepo, in waste places. |
| 4 4463. <i>Smilax</i> | Smilax | |
| 4 4463 ^a . <i>Cuphea</i> | | |
| 4464. <i>Cuphea</i> | | Chepo, in meadows. |
| 4 4465. <i>Xylinia odorata</i> Vahl.
Clavelito de sabana | Cyperaceae | Chepo, in pastures, very common. |
| 4 4466. <i>Dichromena radicans</i> Cham. & Schl. | Cyperaceae | Chepo, in pastures, very common |
| 4 4467. <i>Drymonia spectabilis</i> Mart. | Gesneraceae | Chepo, on old wells. Viny. corolla purplish red in margin, Sally white at base. |

October 6-7, 1911.

4 4463

Smilacaceae Savana de Dormisolo

4463a. *Cuphea balsamifera* L. & S.

4 4468

Bignoniaceae Alto de Gasparatana, High Mammi. A vine, fl. purple

4 4469 - *Selaginella*

Selaginellaceae Forests around Gasparatana, High Mammi.

4470

Filices Forests around Gasparatana, High Mammi. Terrestrial.

4471

Filices Forests around Gasparatana, High Mammi. Terrestrial

4 4472 *Achimenes panamensis* / Gesneraceae
(Seem.) Hemsl.

Forests around Gasparatana, High Mammi. Corolla tube hairy, white; lobes lilac; fringed on margin.

4 4473 - *Phytolapha*

Forests around Gasparatana, High Mammi. Trees all stunted, growing on river flats and side of hills. Male flower said to reach 2 feet and over.

4 4474

Filices Forests around Gasparatana. Epiphytic.

4 4475 - *Rondeletia panamensis* D.C.

Rubiaceae Forests around Gasparatana, along R. Mammi, a small tree. Fl. white

October 6-7, 1911.

4 4476 - *Scaphyglottis unguiculata* Schltr.

Orchidaceae

In forests around Gasparasabana, high Mammi. Epiphytic. Fl. lilac.

4 4477

Ferns

In forests around Gasparasabana, high Mammi. Epiphytic.

4 4478 - *Asplenium formosum* Willd.

Filices

On rocks along Mammi R. at Gasparasabana.

4479

Filices

In forests around Gasparasabana, high Mammi. Epiphytic.

4 4480 *Ossaea diversifolia* (Vand.) Cogn. Melastomataceae.

Along Mammi R. at Gasparasabana, high Mammi. A low shrub. Corolla diminute, white. In cool places.

4 4481 *Euphea calophylla* C. B. Lythraceae

Along Mammi R. at Gasparasabana, on rocks. Fl. light purple.

4 4482 *Kohleria tubiflora* (Cav.) Gaertn. Geraneaceae

Along Mammi R. at Gasparasabana, on cool, rocky banks. Fl. red.

4 4483 *Lindenia rivalis* Benth.

Rubiaceae

Along Mammi R. at Gasparasabana, on rocks.

4 4484

Myrtaceae

On banks of Mammi R. at Gasparasabana. A shrub. Fl. white.

October

6-7, 1911.

4485. *Cyperus simplex* H.B.K.

Cyperaceae

On banks of Mammi R. at Gasparatana.

4486

Euphorbiaceae

Along Mammi R. at Gasparatana. A treelet with hanging branches.

4487. *Blechnum panamense* Lindau sp. n.

Acanthaceae

Along Mammi R. at Gasparatana, on rocks. Fl. lilac.

4488. *Odontonema flagellum* O. Kuntze

Acanthaceae

Along Mammi R. at Gasparatana, on shady banks. Fl. red.

4489. *Vitex Masoni* Pittier
Guajado

Verbenaceae

Forests around Gasparatana, high Mamoni. A medium sized tree.
Inflo. racemose. Corolla small, with narrower filice lobes.

4490. *Stelis*

Orchidaceae

Forests around Gasparatana, high Mamoni. Epiphytic. Fl. small, green.

4491. *Carnia caudata* Standley

Leguminosae

Alto de Gasparatana, high Mamoni. A shrub. Fl. pale yellow.

4492

Filices

Alto de Gasparatana, high Mamoni. Epiphytic

4493. *Pithecolitium* (~~Leys~~) *profusum* Benth. Leguminosae
n.v. Permil

Around Chapo, in ravines. A low, spreading tree. Fl. white.

October 8, 1911

4494. *Paspalum conjugatum* Humboldt & Boid. Graminae

Chepo, in pastures about town

4495. *Hyptis suaveolens* (L.) Poit Labiatae
Hierba de San Juan

Sabana de Juan Cocho. Apparently only in well wooded savanna.
Fl. purple.

4496

Euphorbiaceae

Sabana de Juan Cocho, on the outskirts and bushy places. Fl. white.

4497. *Cyperus diffusus* Vahl.

Cyperaceae

Chepo, in marshy places about town.

4498 *Burckesia pilosa* HBK. Malpighiaceae

Sabana de Juan Cocho, on the ^{woody} outskirts. A small tree. Fl. yellow. Fr. orange yellow.

4499. *Byrsonima luminiensis* A. Juss. Malpighiaceae
Nance Colorado - Para dormitatos de casa, etc. Fruit edible

Sabana de Juan Cocho, on woody outskirts. A mid-sized tree, with spreading, depressed crown. Fl. yellow, turning to orange red.

4500

Graminae

Sabana de Juan Cocho, in well wooded parts.

4501. *Olegiphila martinicensis* L.

Verbenaceae

Sabana de Juan Cocho, on woody outskirts. A viney shrub. Fl. pale yellow.

4502. *Pectis swartziana* Less.

Compositae

Sabana de Juan Cocho, very common.

October 8, 1911

4503. *Phoradendron rubrum* (L.) Frisb. Lorantheae Sabana de Juan Cocho, epiphytic on trees of the wooded outskirts.

4504. *Hydrolea spinosa* L. Hydrophyllaceae Sabana de Juan Cocho, in wet, bushy places. Fl. purplish blue.

4505
blavellin de sabana Compositae Sabana de Juan Cocho, in wet grassy places. Fl. yellow, open only in morning, when the crown is quite flat.

4506. *Polygala angustifolia* H. B. K. Polygalaceae Sabana de Juan Cocho, in bushy outskirts. Fl. greenish or pinkish white.

4507 Vitaceae Sabana de Juan Cocho, in bushy outskirts. Fl. yellowish.

4508. *Alibertia edulis* A. Rich. Rubiaceae Sabana de Juan Cocho, on the outskirts. A shrub, fl. white.
Trompito

4509. *Rhynchospora barbata* (Vahl) Kunth. Cyperaceae Sabana de Juan Cocho, common and untraced.

4500. *Melochia hirsuta* Cav. Sterculiaceae Sabana de Juan Cocho. Common. Fl. purple. Untraced.

4511. *Cordia chepensis* Pittier n. sp. Boraginaceae Sabana de Juan Cocho, common in bushy outskirts. Fl. white.

October 8, 1911

4512

Commelynaceae Chepo, in meadows about town. Fl. azure blue, closing at ± 10 am.

4513. *Coutarea hexandra* Schum.

Rubiaceae Sabana de Juan Cocho, in wooded outskirts.

4514

Smilacaceae Sabana de Juan Cocho, in wooded outskirts. Viny, spinose. Fl. greenish.

4515. *Paspalum multicaule*

Graminae ^{Cerro} Sabana de Juan Cocho.

4516. *Mesosetum*

Graminae Sabana de Juan Cocho.

4517. *Cassia oxyphylla* Kth.

Leguminosae Sabana de Juan Cocho, in wooded outskirts. Fl. yellow.

4518 *Phyllanthus nobilis* (L.f.) Muell.

Sabana de Juan Cocho, in wooded outskirts. Seeds azure blue. A small tree.

4519

Compositae Sabana de Juan Cocho, in bushy outskirts. Fl. yellow.

4520. *Melampodium divaricatum* (Rich.) D.C. Compositae

Sabana de Juan Cocho, in bushy outskirts. A shrub. Fl. yellow.

October 8, 1911

4521

Compositae

Sabana de Juan Cocho, in wooded outskirts. A shrub. Fl. large, yellow.

4522. *Lipocarpus sphacelata* (Vahl) Kunth.

Cyperaceae

Sabana de Juan Cocho, in wet places.

4523. *Tridax procumbens* L.

Compositae

Sabana de Juan Cocho, in dry places around stones.

4524. *Eragrostis acutiflora*

Graminae

Sabana de Juan Cocho, in wet places along trails.

4525. *Paspalum clavuliferum* Wright

Graminae

Sabana de Juan Cocho, rare.

4526. *Panicum lepidulum* Hitch. & Chase.

Graminae

Sabana de Juan Cocho, rare.

4527. *Paspalum convexum* Humb. & Boid.

Graminae

Sabana de Juan Cocho, rather common along trails

4528. *Finibristylis diphylla* (Retz) Vahl.

Cyperaceae

Sabana de Juan Cocho, common in swampy places.

4529. *Torenia crustacea* (L.) C. B.

Scrophulariaceae

Sabana de Juan Cocho. Fl. purple. Forms little colonies.

October 8, 1941

4530. *Imbristylis miliacea* Vahl.

Cyperaceae

Sabana de Juan Cocho, in swampy places

4531. *Isachne trachysperma*

Graminae

Sabana de Juan Cocho, in wet places

4532. *Rynchospora micrantha* Vahl.

Cyperaceae

Sabana de Juan Cocho, in wet places

4533. *Cyperus flavescens* L.

Cyperaceae

Sabana de Juan Cocho, in wet places.

4534. *Syntherisma sanguinalis* Dulac.

Graminae

Sabana de Juan Cocho.

4535

Graminae

Sabana de Juan Cocho.

4536. *Panicum pilosum* Sw.

Graminae

Sabana de Juan Cocho, in shady outskirts

4537. *Piper villiramulum* C. DC.

Piperaceae

Sabana de Juan Cocho, in bushy outskirts, a shrub, 1-1.20 high.

4538. *Calea prunifolia* H. B. K.

Compositae

Sabana de Juan Cocho, in wooded outskirts. a viny shrub.

October

8-9, 1911.

4539. *Piper dumeticola panamense* C. D. C.

Piperaceae

Sabana de Juan Cocho, ^{or so} in bushy outskirts, a tree shrub.

4540.

Dilleniaceae

Sabana de Juan Cocho, in bushy outskirts. A vine. Fl. white.

4541 *Arguria warszewiczii* Hook. f. Cucurbitaceae

Sabana de Juan Cocho, in bushy outskirts. A vine. Fl. white.

4542

Malpighiaceae

Camino del Boticario, near Chepo. A climbing vine.

4543. *Rhynchospora eximia* (Nees) Bockl.

Cyperaceae

Camino del Boticario, in a pond.

4544. *Monnina pilosa* Standley sp. n.

Leguminosae

Camino del Boticario, near Chepo, in meadow. Stems erect or ascending. Fl. lilac.

4545

Euphorbiaceae

Camino del Boticario, near Chepo, in swampy places. Fl. white.

4546

Euphorbiaceae

Camino del Boticario near Chepo, in swampy places. Fl. white.
hairy4547. *Caperonia panamensis* Pan & H. Hoffm. sp. n. EuphorbiaceaeCamino del Boticario near Chepo, in swamp. Fl. white, leaves
narrow, glabrous.

October 9, 1911.

4 4548. *Deschynomene sensitiva* Sw.

Leguminosae

Camino del Boticario near Chepo, in damp meadows. Fl. yellow

4 4549 *Deschynomene sensitiva* Sw.

Leguminosae

Camino del Boticario near Chepo, in pond. Fl. yellow.

4 4550. *Scirena umbellata* Rottb.

Cyperaceae

Camino del Boticario near Chepo, in pond.

4 4551. *Paspalum plicatulum* Michx

Graminae

Camino del Boticario near Chepo, in pond

4 4552. *Homalocenchrus hexandrus* D.K.

Graminae

Camino del Boticario near Chepo, in pond.

4 4553 *Crestidium rufescens*
Blanch.

Leguminosae?

Camino del Boticario near Chepo. Cl. vine.

4 4554. *Utricularia*

Camino del Boticario, near Chepo, in pond. Fl. pink.

4 4555.

Marsileaceae

Camino del Boticario, near Chepo, in pond.

4 4556

Alismataceae

Camino del Boticario, near Chepo, in pond. Fl. white, tinged with purple.
not same as the one near Diablo Camp.

October 9, 1911

4557. *Eleocharis mutata* (L.) R. Br.

Cyperaceae Camino del Boticario near Chepo, in pond.

4558. *Cyperus hesper* L.

Cyperaceae Camino del Boticario near Chepo, in pond.

4559. *Eleocharis acicularis* (L.) R. Br.

Cyperaceae Camino del Boticario near Chepo, in pond.

4560. *Castalia blanda* (Ney.)

Nymphaeaceae Camino del Boticario near Chepo, in pond. Fl. white

4561. *Psychotria pinularis* Moq. & Sesse

Rubiaceae Camino del Boticario near Chepo, in hedges. Fl. small, white.

4562. *Epidendrum stenopetalum* Klh.

Orchidaceae Chepo, on Crescentia tree. Fl. pink.

4563. *Matayba glaberrima* Radl.

Sapindaceae Chepo, in bushes. A small tree. Fl. white.

4564

Zingiberaceae Chepo, in neighboring, shady woods. Fl. yellow

4565

Fungi

around Chepo, on dead leaves. In clusters, upper part brownish, darker
the center, remainder white.

4566

Fungi

Around Chepo, on leaf detritus. Grayish brown.

4567

Fungi

Around Chepo, on vegetable detritus. Orange yellow, cuplike.

4568

Fungi

Around Chepo, on vegetable detritus. No stem, pure white

4569

Fungi

Around Chepo, on vegetable detritus. Stem long and thin, hat grayish.

4570

Fungi

Around Chepo, on vegetable detritus. Orange red.

4571 - *Wittia panamensis* Britt. & Rose, n. sp. *Cactaceae*

Alto de Paragüitas, 400m, trail to Upper Mamoni - Living plant sent to Dr Rose.

October 23, 1911.

4572 - *Polygala longicaulis* H. B. K.*Polygalaceae*

Between La Capitana & Chepo, in savannas along road. Fl. pink.

4573 - *Diodea teres* Walt.*Rubiaceae*

Between La Capitana & Chepo, in savannas along road. Fl. small, single in axils. Corolla pinkish white.

4574

*Filices*Chepo, on *Cruciferae*.

4575

4576 - *Justicia carthagenensis* L.4577 - *Cyperus giganteus* Vahl.4578 - *Pachira ~~villosula~~ ^{panamensis} Pittier*
Fruta de mono4579 *Posoqueria ~~latifolia~~ ^{panamensis} Bonpl.*
Fruta de Muricélago; eaten by children4580 *Stigmaphyllon ~~puberulum~~ ^{pus.}*4581 - *Bixa Orellana platycarpa* Warburg.4582 - *Dimorphandra megistosperma* Pittier.
Alcornoque4583 *Oncidium pusillum* Rehb. f.
Lemana SantaOctober 23^d, 1911*Dilleniaceae* Along road between Chepo & La Capitana, in bushes. Fl. pale yellow.*Acanthaceae* Along road between Chepo & La Capitana, in bushes. Pl. about 1^m 20 high. Fl. purple, only a few at a time.*Cyperaceae* Banks of Mamoni R. near La Capitana.

B.

Bombacaceae Banks of Mamoni R. below La Capitana. Often a partly tree, 50 cm. in diameter & 25-30 m high. Petals salmon white or pinkish. St. and styles deep pink near end, paler below. Fr. ovoid, about 18 cm. long, 12 cm. diam. rich brown.*Rubiaceae* Banks of Mamoni R. A small tree. Fl. white. Fr. yellow. Photo.*Malpighiaceae* Banks of Mamoni R. near La Capitana. An herbaceous vine. Petals pinkish purple red inside, with a yellow fringe of hairs, large yellow margin and a dark orange red center outside.*Bixaceae* Banks of Mamoni R. near La Capitana. A small tree, considered distinct of B. Orellana by the natives, who say the fruit is round, while it is oblong pointed in the latter.*Leguminosae* Banks of the Mamoni, in small groups (5-8 together). Pods very large, 1-seeded, of a rich golden brown, and containing a red dye - Notes & Photos.*Orchidaceae* Banks of Mamoni near La Capitana, on limbs of a fallen tree. Fl. bright yellow.

October 23^d, 1911

- 4584 *Xiraea faginea* (Sw.) Ndg. Malpighiaceae Banks of Mamoni R. near La Capitana. A woody vine, flowering in tops of very high trees. Petals yellow.
- 4585 *Drepanocarpus lunulatus* (L.f.) Mey. Leguminosae Banks of Mamoni R. near La Capitana. Forming long stretches of thicket in many places near the water. Fl. purple. Pod (not collected) flat many-seeded, about 3 cm. broad and 12 cm. long.
- 4586 *Sida spinosa* L. Malvaceae Along road between La Capitana & Chepo. erect. Fl. pale yellow.
- 4587 *Phaseolus longepedunculatus* Mart. Leguminosae Along road between La Capitana & Chepo. Fl. large, dull red.
- 4588 *Sironulaca* Compositae Along road between La Capitana & Chepo. Often 2^m high. Plants ramose, pyramidalis.
- 4589 *Helicteres guazumifolia* H.B.K. Sterculiaceae Along road between La Capitana & Chepo.
Guacimillo
- 4590 *Muntingia calabura* L. Sterculiaceae Along road between La Capitana & Chepo. A small tree. Fl. white.
Pavito - Red berries edible
- 4591 *Buellneria carthagenensis* Jacq. Sterculiaceae Along road between La Capitana & Chepo. A vine. Fl. pale yellow.
Rangai - No use
- 4592 *Paja catezona* Gramineae Along road between La Capitana & Chepo.

October

23^d 1911

4593. *Borreria latifolia* (Aubl.) Schum.

Rubiaceae

Between La Capitana & Chepo, in rich meadows near the latter place. Fl. white

4594

Convolvulaceae?

^{Laguna}
Between de Portala, near Chepo, trailing. Fl. white.

4595 *Ruellia*

Scrophulariaceae

Between La Capitana & Chepo, along road. Fl. large. Plant. rare. Corolla
light purple or violet

4596. *Lida linifolia* Juss.

Malvaceae

Between La Capitana & Chepo, along road. Fl. yellow.

4597.

Between La Capitana & Chepo, along road. Fl. purplish white.

4598. *Borreria tenella* (H.B.K.) L. & G.

Rubiaceae

Between La Capitana & Chepo, along road. Fl. white.

4599. *Bradburya angustifolia* (Benth.) O. Ktze
Baracucha de Sabana.

Leguminosae

Between La Capitana & Chepo. Fl. purple.

4600. *Limnanthemum Humboldtianum* Griseb
Flor de Laguna

Laguna de Portala, near Chepo, on muddy ground, out of water

4601. *Eleocharis acicularis* (L.) R. Br.

Cyperaceae

Laguna de Portala, near Chepo.

October 24, 1911

4602. *Eleocharis mutata* (L.) R. Br.

Cyperaceae Laguna de Portala near Chepo.

4603

Commelinaceae Laguna de Portala near Chepo. Fl. azure blue. Grailing

4604

? Laguna de Portala near Chepo. Fl. purple.

4605

? Laguna de Portala near Chepo. Fl. yellow.

4606 *Heliotropium nudatum*
Sw.

Borraginaceae Laguna de Portala near Chepo. Fl. white

4607 *Arisaema quadrata* Jess.

Melastomataceae Laguna de Portala near Chepo. Fl. pink.

4608

Sitophulariaceae Laguna de Portala near Chepo. Fl. pale blue or purplish.

4609

Convolvulaceae Laguna de Portala near Chepo. Fl. white.

4610. *Phyllanthus*

Euphorbiaceae Laguna de Portala near Chepo.

Octubre 24, 1911.

4611. *Oeschynomene sensitiva* L.

Leguminosae Laguna de Portala. Fl. yellowish brown

4612. *Borreria oeymoides* (Burm.) D.C.

Rubiaceae Laguna de Portala. Fl. white.

4613. *Paspalum orbiculatum* Pers.

Graminae Laguna de Portala

4614. *Panicum* ^{*dichotomiflorum* Michx.}
~~*chloroticum* Hees.~~

Graminae Laguna de Portala

4615. *Panicum laxum* Sw.

Graminae Laguna de Portala

4616. *Imbristylis miliacea* Vahl.

Cyperaceae Laguna de Portala

4617. *Cornutia grandifolia* (S. & Z.)
Palo cuadrado; Hoja plana

Verbenaceae Laguna de Portala. A shrub. Fl. purple.

4618. *Ipomoea acariifolia*
Campanilla (Deer.) R. & S.

Convolvulaceae Laguna de Portala. Fl. pink.

4619. *Melochia melissaeifolia* Benth.

Sterculiaceae Laguna de Portala. Fl. pinkish white.

October 25, 1911

4620. *Euphea balsamifera* C. D. S. Lythraceae

Laguna de Portala near Chapo.

4621. *Paspalum*

Graminae

Laguna de Portala, in dry savana.

4622. *Paspalum multicaule*

Graminae

Laguna de Portala in dry savana.

4623. *Pectis swartziana* Less.

Compositae

Laguna de Portala in dry savana. Obovate. Fl. yellow.

4624. *Paspalum minus* Trum.

Graminae

Laguna de Portala, in dry savana.

4625. *Zornia diphylla* Pers.

Leguminosae

Laguna de Portala, in dry savana

4626. *Rynchospora barbata* (Vahl) Kunth.

~~Scrophulariaceae~~

Laguna de Portala, in dry savana. Fl. yellowish white.

4627. ~~*Reckia*~~ *Sapota* *Hyptis lantanaefolia* Poir. ~~Scrophulariaceae~~
Suspiro de savana

Laguna de Portala in dry savana. Fl. lilac. Prostrate

4628. *Reckia Sapota*

Sapotaceae

Laguna de Portala, in mall wood. Fl. greenish.

Mamey

October 25, 1911

4629. *Xylopia*

Annonaceae

Laguna de Portela on skirt of woods.

Malagueto - Used only for fuel and said to burn readily when green.

4630. *Heliotropium**indicum* L.

Borraginaceae

Laguna de Portela, in wet ground.

Flor de alacran

4631. *Hyptis**brevipes* Poit.

Labiatae

Laguna de Portela, in surrounding dry savanas. Fl. lilac. Erect.

4632. *Paspalum altitum*

Graminae

Laguna de Portela, in wet places.

4633. *Chamaecrista tagera* (L.).

Leguminosae

Laguna de Portela, in dry savana. Fl. bright yellow.

4634. *Anonopus compressus* Beauv.

Graminae

Laguna de Portela, in dry savana.

4635. *Polygala angustifolia* H. B. K.

Polygalaceae

Laguna de Portela, in dry savana; fl. lilac or purple.

4636. *Xylinia brevifolia* Rottb.

Cyperaceae

Laguna de Portela, in dry savana, forming dense little colonies not browsed by cattle.

4637

Commelinaceae

Laguna de Portela, in dry savana. Fl. azure blue

Octubre

26, 1911.

Labels up here

4638. *Peltaea sessiliflora* (H. B. K.) Standley
Guacimillo Malvaceae

Laguna de Portala, invading the surrounding dry savanes.
Not in flower. Sabana de Dormisolo.

4639. *Cardiospermum halicacabum* L. v. *microcarpa* Leguminosae

Around Chepo, in dry savanes. Fl. white.

4640. *Phyllanthus*

Euphorbiaceae

Laguna de Portala, in wet ground. Erect, common.

4641. *Diphyssa carthagenensis* Jacq.

Leguminosae

Sabana de Juan Corso. A small tree. Fl. yellow.

Cacique. Much used in native construction of houses.

4642. *Aristida jurellensis* Kth.

Graminae

Sabana del Tobito, near Chepo. Apparently scarce.

4643. *Guaiacum plataniifolia* R. & P.
Guipo

Bombacaceae

Sabana de Dormisolo, in surrounding woods. No so large as
in high forest.

4644. *Didymopanax* ^{Morototoni} ~~peruvianum~~ ^{me} Dec. & Pl.

Araliaceae

Sabana de Dormisolo, in surrounding woods. A mid-sized tree
about 20 m. high. 30 m. at base, sparsely branched in a dense
moss. Panicle very large.

Mangabe. Usado para picas de casa.

Pava (S. Felix)

4645.

Quillaja

Sabana de Dormisolo, in the outskirts. A little tree.

4646. *Paspalum densum*

Graminae

Sabana de Dormisolo. Not in season.

Octubre 26, 1911

4647. *Paspalum virgatum* L.

Graminae

Sabana de Dormisolo, not in season.

4647a *Meibomia barbata* (L.) Ktze

Papilionatae

4648. *Paspalum plicatulum* Michx.

Graminae

Sabana de Dormisolo.

4649. *Manisuris ramosa*

Graminae

Sabana de Dormisolo

4650. *Bradburga angustifolia* (Nenth) O. Ktze

Leguminosae

Sabana de Dormisolo. A vine. Fl. very large, pinkish purple.

4651. *Polygala hygrophila* H. B. K.

Polygalaceae

Sabana de Dormisolo. Dense, cylindrical head, in greenish lilac fl.

4652. *Borreria tenella* (H. B. K.) C. & S.

Rubiaceae

Sabana de Dormisolo. Erect. Fl. white.

4653. *Phryganocydia corymbosa* Bur.

Bignoniaceae

Sabana de Dormisolo. A vine, common on high trees. Fl. vanilla perfumed, pink.

4654. *Crotalaria pterocaulon* Desv.

Leguminosae

Sabana de Dormisolo. Fl. yellow. Ripen pods black.

4655. *Chamaecrista* ^{*simplex* Standley sp. n.} ~~*bracteata* (L.)~~

Leguminosae

Sabana de Dormisolo. Fl. yellow. Pods brown.

October 26, 1911.

4656. *Hyptis lappacea* Benth. Labiales

Sabana de Dormisolo. Erect. Fl. blue.

4657 *Rapanea pellucida-punctata* Myrsinaceae
Mangle de sabana (Ceret) Mez

Sabana de Dormisolo. A small tree. Trunk \pm 3 m. Bark
smooth, grayish. Brown rounded depressed.

4658. *Pectis elongata* H.B.K.

Compositae

Sabana de Dormisolo. Erect. Fl. yellow.

4659. *Lapinum*

Olivo. No used except for the glue

Sabana de Dormisolo. A small tree. Wood sp.

4660. *Contoubea spicata* Aubl.

Gentianaceae

Sabana de Dormisolo. Erect. Fl. white. (Orchid-like!!)

4661. *Phyllanthus*

Euphorbiaceae

Sabana de Dormisolo.

4662. *Rhynchospora eximia* (Nees) Vahl.

Cyperaceae

Sabana de Dormisolo

4663. *Diodia teres* Walt.

Rubiaceae

Sabana de Dormisolo. Fl. white.

4664

Scrophulariaceae

Sabana de Dormisolo. Fl. like *Senecio*?, blue or pink

October 26, 1911.

4665

Scrophulariaceae Laguna de Juan Corso. Fl. small, purple.

4666

Convolvulaceae Laguna de Juan Corso, in dry places.

4667. *Schultesia heterophylla* Wieg.

Gentianaceae Lagunas de Juan Corso, etc. Fl. campanulate, pink, open only

4668 *Arisaema quadrata* Juss. Melastomataceae Laguna de Juan Corso, in wet places.

4669. *Spigelia*

Loganiaceae Laguna de Juan Corso, in wet places. R.

4670. *Bursera gummicifera* L.
Almácigo

Burseraceae Laguna de Juan Corso, in neighboring woods.
Note pointed leaves.

4671. *Matayba glaberrima* Radlk.
Palimonton

Sapindaceae Laguna de Juan Corso, in surrounding woods. A small tree.

4672. *Gleichenia geniculata* (L.) R. Br.)
Juncos

Cyperaceae Laguna de Juan Corso.

4673. *Chomelia brachyloba* Standley
Espino de mata

Rubiaceae Laguna de Juan Corso, in surrounding woods, a small tree.
Lvs of umbella long & thin. Lobes small, acute. Fl. white.

4674. *Calea prunisolia* H.B.K.
Arbolito de lija. Usad pararegar

4675. *Isertia haenkeana* D.C.
Canelito

4676.

4677. *Schultesia stenophylla* Mart.

4678

4679. *Limnocharis flava* Buchenau β minor Micheli

4680. *Baccharis*
Sanalotodo

4681. *Euphorbia*

4682.
Mancaestallo

Octubre

26, 1911.

Compositae

Laguna de Juan Corso, in surrounding bushes.

Rubiaceae

Laguna de Juan Corso, in shady bushes.

Laguna de Juan Corso, in wet places.

Gentianaceae

Laguna de Juan Corso. Fl. pink.

Heperidaceae?

Laguna de Juan Corso.

Alismataceae

Laguna de Juan Corso, in inundated places.

Compositae

Laguna de Juan Corso, in bushes.

Euphorbiaceae

Laguna de Juan Corso.

Flacourtiaceae

Laguna de Juan Corso. A small, thorny tree. Fl. yellow.

Octubre 26, 1911.

4683. *Vitex floridana* ~~Michx.~~ & Walp. Verbenaceae
Guajado - Usado para piegas.

In woods around sabanas, Chepo. A tree with straight trunk
grayish white bark, striated longitudinally. ~~Same as 4489?~~

4684. *Genipa Caruto* H.B.K. Rubiaceae
Tagua - Cuna sápturu-uála - sápturu, the fruit.

La madera se usa para pie' derecho de punta que es el lado de la verguena, ^{o de la verguena.}

4685. *Byrsonima buringiana* R. Juss. Malpighiaceae
Nance blanco.

In woods around sabanas, Chepo. A small tree, with flat
crown. Fl. white.

In wood around sabanas, Chepo. Higher than n° 4499, with white
wood. Brown rather elongate.

4686. *Crotalaria stipularia* Desv. Leguminosae

Sabanas de Dormisolo.

4687. *Mesosetum* Graminae

Sabanas de Dormisolo.

4688. *Lasiacis globosa* Hitchc. Graminae

Around Chepo, in bushes; long ramose culms.

4689. *Hierba de gallinazo*. Solanaceae

Around Chepo, in meadows; fl. white.

4690. *Burchardia cornifolia* HBK. Malpighiaceae
berezó de monte

Camino del Boticario. A small tree. Fl. yellow.

4691. *Cratogeomys*

Banks of R. Mamoni, at el Boticario. Fl. white.

Octubre 27, 1911

4692. *Spondias purpurea* L.
Ciruelo. Used for fever roots in fences

Anacardiaceae Camino del Boticario, near Chepo. A tree. Fl. red.

4693. *Paspalum virgatum* L.

Graminae Along rio Mamoni, near Chepo.

4694. *Eleusine indica* Gaertn.

Graminae Along rio Mamoni, near Chepo.

4695. *Panicum fasciculatum* Sw.

Graminae Along rio Mamoni, near Chepo.

4696. *Panicum trichoides* Sw.

Graminae Along rio Mamoni, near Chepo

4697.

Zingiberaceae Camino del Boticario, ad fosas. Fl. white

4698

Musaceae Camino del Boticario. Fl. lilac.

~~4699~~

4699 *Banisteriopsis argentea*
(H.B.K.) C.B. Rob.

Malvaceae Camino del Boticario. A vine with pink flowers.

4700 *Prestonia ipomoeaefolia*
A.D.C.

Apocynaceae Camino del Boticario. A vine. Fl. yellow.

October 29-30, 1911.

Karatas
4701. Bromelia ~~Bingulii~~ L.

Bromeliaceae

Piro. Plant used for live fences. Fruit acidulate, used for "frescos". buna = pi.

Around Chepo in fences. Not seen wild. Photos. Ripe fruits elongate, covered with brown, shaggy, coarse hairs and bearing persistent calyx. Seeds collected.

4702.

Filices

Around Chepo, in bushes. Climbing.

4703 Bromelia ~~Bingulii~~ L.
Piñuela

Bromeliaceae

Around Chepo, in fences & bushes. Ripe fruits woid, glabrous, greenish yellow and rather sweet when ripe. Photos.

4704

Plaja de culebra (Photo)

Cactaceae

Along R. Mamoni above El Boticario. A shrub, with fine needles.

4705 Arthrostemma ~~campanulata~~
Hierba de agua (Wand.) Treava

Melastomataceae

Along R. Mamoni above El Boticario. A weed. Sepals 3, range in margin, greenish yellow at center. Petals red orange. Ripe fruits bright yellow. ^{very acid or sour} Flesh mirabelle colored. ^{ripe} Black seeds in each of two, with an 8th imperfect, in 1.

4706. Entada polystachya (Jacq.) D.C.

Leguminosae

Along R. Mamoni above El Boticario. A vine. Fl. white.

4707. Olmedia aspera R. & P.

Moraceae

Along Charare' R. A small tree. Fl. white. Limbs hanging.

4708. Piper marginatum Jacq.
Hinojo

Piperaceae

Along Charare' R., in clearings

4709. Piper auritum H. B. K.
Hinojo macho

Piperaceae

Along Charare' R., in clearings.

October 29-30. 1911

4710. *Chlorophora tinctoria* Gaudich.
Mora

Moraceae Along Charare' R. - A tree, but seen only seedling.

4711

Solanaceae Along Charare' R. A shrub, subligum. Fl. yellow. Fr. red.

4712. *Peperomia ciliolibractea* C. DC.

Piperaceae Along Charare' R. on old rotten tree trunks.

4713. *Begonia chepoensis* C. DC.
Churto, Cavita de perro.

Begoniaceae Along Charare' R. in wet places

4714. *Sauvagesia erecta* L.

Violariaceae Along Charare' R., on rocks. Fl. white.

4715

Filices Along Charare' R. on rocks.

4716

Myrtaceae Along Charare' R. - A shrub. Fl. white

4717

Scrophulariaceae Along Charare' R. on rocks. Fl. white.

4718. *Soleria melaleuca* Robt.

Cyperaceae Along Charare' R., on rocks.

4719. *Paspalum Lloydii*

October 29-30-1911.

Gramineae Along Chararé' R., above Chipo.

4720

Manita de peña. Used in baths to cure erysipela.

Selaginella Along Chararé' R., on rocks.

4721

Filices Along Chararé' R. on rocks.

4722. *Dichromena radicans* Sch. & Cham.

Cyperaceae Along Chararé' R., on rocks.

4723. *Aphelandra glabrata* Willd.

Acanthaceae Along Chararé' R., in dark forest. Fl. red.

4724

Araceae Along Chararé' R., on rocks, in dark places.

4725 *Isacorea compressa*
(HBK.) Staudl.

Myrsinaceae Along Mamoni R., above Boticario. Fl. blanches. Fr. black.

4726. *Odontonema longifolium* O. K.

Acanthaceae Along Mamoni R., above Boticario. Fl. red.

4727. *Polygala paniculata* L.

Polygalaceae Along Mamoni R., above Boticario. Fl. pink.

October 29.30, 1911.

4728. *Impheia*?

Along Mamoni R., above el Boticario. Fl. greenish. A shrub.

4729.

Uprocyneae Along Mamoni R., above el Boticario. A milky vine. Petals white; corolla purple.

4730.

Compositae Along Mamoni R., above el Boticario. Fl. white.

4731. *Erythrina rubrinervia* H.B.K.
Ramil?

Leguminosae Along Mamoni R., above el Boticario. Fl. red.

4732.

Aristolochaceae Along Mamoni R. above el Boticario.

4733. *Blechnum panamense* Lindau sp. n. *Acanthaceae* Along Mamoni R. above el Boticario. Fl. purple.

4734. *Panicum barbinode* Trin.
Hierba parada

Graminae Along Mamoni R., above el Boticario.

4735

Solanaceae Along Mamoni R., above el Boticario. Forming large colonies in sandy beaches. Fl. white.

4736. *Paullinia alata* Don.

Sapindaceae Along Mamoni R., above el Boticario. A vine. Fl. white.

November 1-2, 1911.

4737. *Malachra alceifolia* Jacq.
Malva. Same uses as true Malva.

Malvaceae

Chepo. Around houses. 1-2 m. high. Fl. yellow.

4738. *Jatropha gossypifolia* L. v. *elegans* M. Arg.
Frailecillo

Euphorbiaceae

Chepo, in waste places, around houses. Fl. dark purple.

4739. *Jatropha Curcas* L.

Euphorbiaceae

Attains a shrub 2-3 m. high, but mostly herbaceous here.

Coquillo. Seeds are an emetic vomitive and
drastic. Used for live fences.

Euphorbiaceae

Chepo, forming colonies in village. Fl. greenish.

4740. *Jatropha ~~adactylophylla~~* Ba. & K. Hoffm. n. sp.

Euphorbiaceae

Chepo in meadows and around houses. Fl. white.

Ortiga de sabana - Cuna: take.

Guaritote au Venezuela

4741. *Dioclea guianensis* Benth.

Leguminosae

Sabana del Jagüito near Chepo, on trees on outskirts. Floral
spikes long and erect. Fl. violet.

4742. *Paspalum plicatulum* Michx.

Graminae

Sabana del Jagüito, near Chepo.

4743

Scrophulariaceae

Sabana del Jagüito, near Chepo. Small. Fl. lilacinae.

4743a. *Polygala angustifolia* H. B. K.

4744. *Cleocharis nodulosa* (Roth) Schult.

Cyperaceae

Sabana del Jagüito, in wet places.

4745. *Phaseolus gracilis* Poepp.

Leguminosae

Sabana del Jagüito, on dry ground. Fl. brick red.

= 4587?

November 2, 1911.

4746. *Cassia*
Frijolillo redondo.

Leguminosae Sabana del Jagüito, near Chepo. Fl. yellow. Forming often invading colonies.

4747

Leguminosae Sabana del Jagüito. Fl. purple. Plant prostrate.

4748. *Tabernaemontana grandiflora* Jacq.

Apocynaceae Sabana del Jagüito. A small tree, \pm 3 m. high, with flat crown.

4749. *Chamaecrista stenocarpa* (Vog.) ?

Leguminosae Sabana del Jagüito. Fl. yellow.

4750. *Tumia erecta* L.

Sabana del Jagüito. Petals 4, yellow, caducous. Grows in swamps.

4751. *Mesosetum*

Graminae Sabana del Jagüito.

4752. *Cleocharis mutata* (L.) R. Br.

Cyperaceae Sabana del Jagüito, in swamps.

4753. *Aristida jirullensis* Kth.

Graminae Sabana del Jagüito, in dry places.

4754. *Drepanocarpus microphyllus* Mez

Leguminosae Sabana del Jagüito. A thorny vine, with large, spreading racemes of purple flowers.

November

H-6, 1911.

4755. *Trichilia unifoliolata* Beauf. & Standl.

Sabana del Jaguato near Chepo, on the outskirts. A low tree, ramified from the base. Petals 5, white. Stamens 10. Fr. 3-angled.

4756. *Echites microcalyx* A. DC. Apocynaceae

Sabana del Jaguato near Chepo. A vine. Fl. reddish brown in center, tips of corolla yellow.

4757. *Ficus*

Moraceae

In woods around Chepo. A small tree.

4758. *Jumiea suffruticosa* L.

Along paths around Chepo. Petals 4, yellow.

4759. *Serjania Seemannii* Br. & Planch. Sapindaceae

Around Chepo. A vine climbing high on trees. Racemes erect. Fl. white. Wood resinous. Piece of basal trunk.

4760. *Minusa pudica* L.

Leguminosae

Around Chepo, in meadows. Forming colonies. Apparently not burned.

4761. *Meibomia supina* (Sw.) Britton

Leguminosae

Around Chepo, in meadows.

4762. *Platymiscium dubium* Pittier n. sp. Leguminosae
Quira

Around Chepo, in woods near savannas.

4763. *Lafourea punicifolia* DC.

Amarillo de fruto } A. real
A. colorado

Around Chepo. A tree, medium size, with straight trunk. Fl. in terminal or spath. calyx early caducous. Corolla bell-shaped, greenish yellow. Stamens numerous. Ovary discoid, multilocular.

November 7, 1911.

4764. *Andira inermis* HBK. ~~Ridley~~ ^{W. & A.}
Cocú

Leguminosae Chepo, in surrounding woods. A low tree, with flat crown
and numerous, erect racemes of purple flowers.

4765.
Bálsamo

Leguminosae Chepo, an isolated tree in village. Said to be frequent in woods.
A medium sized tree with oblongate ^{trunk} crown, dividing at \pm 2m. in several
large, upright limbs. Branches \pm horizontal or ascending.

4766
Bejuco de tsango (chango), much used in basketry

Bignoniaceae Chepo, in surrounding woods.

4767
Ortiga

Urticaceae Chepo, around houses.

4768. *Eragrostis amena* Presl.

Graminae Sabana de Portela, along road.

4769 *Andira inermis* HBK. ~~W. & A.~~
Cocú

Leguminosae Sabana de Portela in woods. See above?

4770 *Casearia arguta* HBK.

Flacourtiaceae Sabana de Portela, in woods. Fl. white. A small tree.

4771. *Serjania rhombea* Radl.

Sapindaceae Sabana de Portela, climbing on bushes. Fl. white.

4772 *Pithecolobium hymenaeophyllum* Benth.

Leguminosae Near La Capatana, along Chepo road. A low spreading bush. Fl. white.

November 11, 1911.

4773. *Phyllanthus*

Euphorbiaceae

Culebra, in waste places around houses.

4774. *Vismia* sp.?

Colubrina

heteroneura

Plaguntaceae

(Guss.)
Staud.

Culebra, a small tree in meadows. Fl. white. Oct. 20, 1911.

4775. *Corchorus hirtus orinocensis* Schum.

Tiliaceae

Culebra, in waste place. Subligulate shrub; fl. yellow.

4776. *Xiphiidium caeruleum* Aubl.

Haemodorraceae

Shady hills around Culebra.

4777. *Coix Lacryma Jobi* L.

Graminae

Culebra in waste places

4778

Schrockaea cupheoides

(Benth.) Cogn.

Melastomataceae

Culebra, on talus along hilly roads. Fl. pink.

4779. *Corchorus siliquosus* L.

Tiliaceae

Culebra, in waste places. Fl. yellow.

4780. *Sobralia epiphytica* Schltr.

Orchidaceae

Culebra, Mrs. Rousseau. Fl. yellow.

4781.

Orchidaceae

Culebra. Mrs. Rousseau. Fl. golden yellow.

4782. *Physalis angulata* L.

Solanaceae Culebra, in waste places. Oct. 1911.

4783. *Erotalaria guatemalensis* Benth.

Leguminosae Culebra, in waste places. Oct. 1911.

4784

Eclites microcalyx A. DC. ? Apocynaceae

Nov. 12, 1911

Around Gamboa, climbing on trees. A vine, fl. greenish yellow.

4785. *Borreria spinosa* (L.) C. & S.

Rubiaceae Around Gamboa, in meadows. Fl. white

4786. *Indigofera mucronata* Sprng.

Leguminosae Around Gamboa, in dumps. Fl. red.

4787. *Pleurothallis marginata* Lindl.

Orchidaceae Around Gamboa. Epiphytic on *Crescentia*. Fl. yellow.

4788. *Mucuna Andreana* Micheli

Leguminosae Around Gamboa, in bushes. A vine fl. hanging on peduncles up to 2m. long. Petals salmon purplish yellow.

4789 *Panicum laxum* Sw.

Gramineae Around Gamboa, in meadows.

November 12, 1911.

4790. *Panicum zizanioides* H. B. K.

Graminae Around Gamboa, in bushes.

4791

Euphorbiaceae Around Gamboa, in meadows.

4792. *Chaetochloa imberbis* Scribn.

Graminae Around Gamboa, in meadows.

4793. *Mentzelia aspera*

Loasaceae Around Gamboa, on dumps along railroad. \pm 1 m. high. Fl. yellow.

4794 *Cuphea calophylla* C. & S.

Lythraceae Around Gamboa, in meadows. Suffrutescent.

4795. *Urena lobata* L.

Malvaceae Around Gamboa, on dumps. 1-1^m 50 high. Pet. pink. The fl. opens early in the morning, but is closed at 5 pm., at least on sunny days. It is common on the dumps.

4796

Caryophyllaceae Around Gamboa, in meadows. Fl. white. Infl. erect.

4797

Schwauxia eupheoides (Benth.) Cogn. ^{Malvaceae} Around Gamboa, in shady places, along bushes, on river banks, etc. Fl. pink

4798. *Panicum trichanthum* Nees

Graminae Around Gamboa, in bushes.

November

12, 1911

4799 *Cissampelos diversifolia*
(Naud.) Cogn.

Melastomataceae

Around Gambia, on grassy river banks. Forming low, rounded
bushes. Fl. small, pink.

to

4800

Liliaceae

Around Gambia. A vine.

4801. *Apreiba Libourbana* Aubl.

Liliaceae

Around Gambia. A tree. Fl. yellow.

4802

Liliaceae

Around Gambia. A vine. Fl. greenish.

4803

Liliaceae

Around Gambia. A vine. Fl. purplish.

4804. *Cupania sylvatica* Seemann.

Sapindaceae

Around Gambia. A small tree. Fl. white, caducous.

4805 *Cissampelos sphaerocarpa*
Cogn.

Cucurbitaceae

Around Gambia, in gravel dumps. Fl. yellow.

4806. *Panicum maximum* Jacq.

Graminae

Around Gambia, in meadows.

4807. *Panicum barbinode* Trin.

Graminae

Around Gambia, in meadows.

November

4808. *Meibomia cajanifolia* (HBK.) Leguminosae
Kuntze

4809. *Psidium friedrichsthalianum* (Berg) B. H. Myrtaceae

4810. *Genolobus dubius* Pittier Asclepiadaceae

4811. *Lihea platypetala* A. Rich. Tiliaceae

4812. *Astrocaryum* Palmae
n.v. Chunga

4813. *Attalea cohune* Mart. Palmae
Corozo gallinazo, palma real. Note appendix of leaflets below rachis.

4814. *Bleis melanococca* Gaertn. Palmae
Corozo colorado; corozo colorado.

4815. *Cyathula* Amaranthaceae

4816. *Macradenium brassavolae* Rehb. fil. Orchidaceae

1911.

Gambou, on gravel dumps. Stems up to 3m. high., ramified at end.
Fl. small, lilac.

Gambou, in shady bushes. A shrub. Fl. large. Pet. and st. white

Gambou, creeping on bushes. Milky. Fl. large. Pet. green, with a narrow brownish margin.

Culebra. A rather small tree, 18m high, with warty crum. Blooms for 2^d time in November. Fl. large, white.

Around Culebra, always isolated. Chorny trunk (Photo), straight, 5-8m high.
Base of leaves ^{& rachis} aculeate. Leaf-segments whitish beneath, aciculate on margins (Photo).
Floral axis erect. Fr. racemes hanging (Photo). Fruits vivid, dull red, apiculate (Photo).
5-6mm. long

Around Culebra, characteristic for Pacific slope (?). Trunk rather low (?). naked at base in old specimens, covered with base of leaves in younger. Leaves 6.50 and more in length, base leaflets 86-90cm. long, 3cm. broad. Fruit bunches very large, hanging.

Around Culebra. Trunk creeping and then erect. Base of leaves adhering, aciculate in margin. Racemes of fl. hidden between bases of leaves. Fruits red. Photos.

Around Gambou in waste, gravelly places. Sepals & outer petals reddish purple

The plants along Gambou division (Verner); Sepals & outer petals vinose purple with narrow margins. Labellum & appendages white. Long bilobed appendix.

4817. *Pogonopus speciosus* (Jacq.) Schum. Rubiaceae

Road from Empire to Chorrera, near Empire (Dubois). A small tree, bracts
bright red, Corolla id. Nov. 27, 1911.

4818. *Sobralia decora* Batem. Orchidaceae

In forest along Gamboa diversion (Vernier). Stems 2-3 m. long. Fl. pink.
Nov. 27, 1911

4819 *Sicydium tannifolium* (HBK.) Liliaceae
Cope.

On bushes around Gamboa. Fl. greenish. " " "

4820. *Malachra fastiata* Jacq. Malvaceae

Waste places about Culebra. 1 m - 1.50 high. Fl. pale pink.

4821. *Pereskia panamensis* Rose Eactaceae

Culebra, cultivated in Mrs Gaillard's garden. Bushy, succulent plant, \pm
1.50 high. Branchlets brittle. Needles reddish pink at base. Petals scarlet
red. Filaments pink, anthers & style white. Nov. 30, 1911.

4822. *Gomariolum ochroleucum* Lindl. Orchidaceae

Culebra; Mrs Gd's collection. collected in this vicinity. Fl. white.

4823. *Epidendrum Stamfordianum* Batem. Orchidaceae

Culebra; Mrs Gd's collection, from the neighborhood. Calyx and outer petals yellowish
green, dotted with purple, labellum yellow with a few pink spots. Floral stems
growing from base of bulb.

4824. *Epidendrum cochleatum* L. Orchidaceae

Culebra, Mrs Gd's coll. from the neighborhood. Calyx & outer petals greenish
yellow. Labellum: base yellow outside, yellow with purple lines inside; the rest
purple.

4825. *Gonympium* Malvaceae

Culebra. Fl. yellow. 4 locks. Seeds sent Mr. Cook.

4826-

Commelinaceae

Around Culebra in waste place, ascending. 50 cm. high. Fl. white.

Nov. 29th

4827. *Meibomia barbata* (L.) Ktze

Leguminosae

Around Culebra, in waste places. 60-1^m high, erect. Fl. purple.

4828. *Chamaecrista patellaria* (D.C.)

Leguminosae

Around Culebra, in waste places. 30-40 cm. high. Fl. yellow.

4829. *Jatropha*

n.v. Ortega

December

3, 1901.

Euphorbiaceae

Around Agua Dulce, in savannas. Flw. larger and leaves somewhat differently divided from the *Chaco* species.

4830

Compositae

Around Agua Dulce, in savannas & waste places.

4831. *Waltheria americana* L.

Fréga plato.

Sterculiaceae

Around Agua Dulce, in savannas & waste places. Fl. yellow.

4832. *Borreria latifolia* (Pursh.) Schum.

Rubiaceae

Around Agua Dulce, along hedges. Fl. pale purple.

4833. *Melochia melissaeifolia* Benth.

Sterculiaceae

Around Agua Dulce, in ditches, growing in water. Fl. small, pale pink.

4834 *Hyptis suaveolens* (L.) Poit. Utriculariaceae

Around Aguadulce. In waterditches. Fl. pink.

4835. *Gida acuta* L. fil.?

Malvaceae

Around Aguadulce, in savanas. Fl. yellowish white, open in middle of sunny day. Loved mummies & cornucop.

4836. *Pittacanthus Schiedeannus* Eichl. (Loranthaceae)

(Majajo, monjero, the last name because of a bird called monje or monjo being fond of the ripe fruits. (Majajo))

Around Aguadulce, in Bursera. Corolla red, caducous.

4837. *Stylosanthes humilis* H.B.K.

Leguminosae

Around Aguadulce. Fl. yellow. Pl. decumbent

4838. *Eragrostis Vahliei*

Graminae

Around Aguadulce, in savanas.

4839. *Bidens*

Compositae

Around Aguadulce. Fl. yellow. 1-1.50 high.

4840. *pitumona*?

Leguminosae

Lithocolobium parvifolium (Willd.) Benth

One of the usual trees in savanas

Around Aguadulce. A low tree, with flat crown, in savanas. Fl. pinkish white

4841

Convolvulaceae

Around Aguadulce, in savanas. Fl. azure.

4842

Convolvulaceae

Around Aguadulce, in savanas. Corolla pale pink, dark purple at bottom.

4843. *Sida ciliaris* L.

December

3^d, 1911.

Malvaceae

Around Aguadulce, in savanas. Creeping. Fl. rather large, reddish orange.

4844

Anonaceae

Around Aguadulce, on skirts of savanas.

4845. *Anacardium occidentale* L.

Anacardiaceae

Around Aguadulce, in orchards, hedges, etc.

Marañon.

4846. *Zornia diphylla* Pers.

Leguminosae

Around Aguadulce, in savanas.

4847. *Simisia polycephala* Benth.

Compositae

Around Aguadulce, on skirts of savanas. Fl. yellow.

4848

Rubiaceae

Around Aguadulce, in savanas. Fl. small, axillary, pinkish white.

4849. *Andropogon fastigiatus* Sw.

Graminae

Around Aguadulce, in savanas.

4850. *Aristida jruellensis* Kth.

Graminae

Around Aguadulce, in savanas.

4851. *Eragrostis amoena* Presl.

Graminae

Around Aguadulce, in savanas

4852. *Pectis swartziana* Less.

December

3^d, 1911

Compositae

Around Aguadulce, in savanas. Dwarf plant, leaves obovate, pale underneath.

4853. *Pectis capillaris* L.

Compositae

Around Aguadulce, in savanas.

4854. *Chamaecrista tagera* (L.)

Leguminosae

Around Aguadulce, in savanas. Fl. small, brownish yellow.

4855

Euphorbiaceae

Around Aguadulce, in savanas.

4856. *Meibomia triflora* (L.) Ktze.

Leguminosae

Around Aguadulce. Fl. small, purple.

4857

Scrophulariaceae

Around Aguadulce. Fl. like *Lisiera*, pale purple.

4858. *Melochia hirsuta* Cav.

Sterculiaceae

Around Aguadulce. Small, decumbent. Fl. purple.

4859. *Syntherisma filiformis* Nash.

Graminae

Around Aguadulce, in savanas.

4860. *Cordia cylindrostachya* R. & S.
Palo negrito

Borraginaceae

Around Aguadulce, in savanas. Bushy, fl. white.

4861. *Mimosa pudica* L.

4862. *Mimosa pusilla* Benth.

4863. *Aeschynomene hystrix* Pir.

4864. *Eragrostis amena* Presl.

4865. *Sporobolus ciliatus*

4866

4867. *Polygala angustifolia* H. B. K.

4868. *Andropogon brevifolius* Sw.

4869. *Timbristylis diphylla* Vahl

December

3^d 1911-

Leguminosae

Around Agua Dulce, in savanas.

Leguminosae

Around Aguadulce, in savanas.

Leguminosae

Around Agua dulce, in savanas, Fl. yellow.

Gramineae

Around Aguadulce, in savanas.

Gramineae

Around Aguadulce, in savanas.

Gramineae

Around Aguadulce, in savanas

Polygalaceae

Around Aguadulce in savanas

Gramineae

Around Aguadulce, in savanas

Cyperaceae

Around Aguadulce, in savanas.

December

3^d 1841.

4870 *Sauvagesia tenella* Lam. *Melastomaceae*

^{in savan}
Around Aquadulae. Fl. pale pink, pet. caducous.

4871 *Paspalum multicaule*

Graminae

Around Aquadulae, in savan

4872 *Alonopus compressus* Beauv.

Graminae

Around Aquadulae, in savan

4873

Graminae

Around Aquadulae, in savan

4874 *Diodia rigida* Cham. & Schl.

Rubiaceae

Around Aquadulae, in savan. Corolla large, infundib. ul., pinkish white.

4875 *Polygala variabilis* H. B. K.

Polygalaceae

Around Aquadulae, in savan. Herbar. Fl. pinkish purple.

4876 *Polygala hygrophila* H. B. K.

Polygalaceae

Around Aquadulae, in savan. Fl. pink.

4877 *Andropogon fastigiatus* Sw.

Graminae

Around Aquadulae, in savan.

4878 *Curatella*

Curneum

Around Aquadulae, in savan. Fl. large, yellow.

December

1911.

4879

Convolvulaceae

Around Aquadule, in savannas. Dwarf. Leaves roundish, very hairy. Fl. deep blue.

4880

Gentianaceae?

Around Aquadule, in savannas. Fl. long tubulose, dark purple.

4881. *Borreria spinosa* (L.) C. & S.

Rubiaceae

Around Aquadule, in shady places, outskirts of savannas. Fl. white

4882 *Bumelia crassifolia* (L.) DC. Malpighiaceae

Around Aquadule. A small tree in woody clumps in savannas.

4883. *Andropogon aprieus*

Gramineae

Around Aquadule, in savannas.

4884. *Peltaea sessiliflora* (H. B. K.) Standley. Malvaceae

Around Aquadule, in savannas. Fl. yellow.

4885. *Lida jamaicensis* L.

Malvaceae

Around Aquadule, on outskirts of savannas. Fl. white, bottom purple.

4885² *Lida rhombifolia* L.

Malvaceae

4886

Convolvulaceae

Around Aquadule. Fl. blue, rather large.

4887. *Oplismenus cristatus* Presl.

Gramineae

Around Aquadule, in shady place of the outskirts of savannas.

December 3-4-1911

4888

Cuingro-Cuingara. - Photo. Flowers in alcohol. (small tube).

Asclepiadaceae

Around Aguadulce, in savanas. A vine, climbing on Clusia. Fl. small, deep purple. Fr. verrucose.

4889. Phaseolus longepedunculatus Mart.

Leguminosae

Around Aguadulce, in savanas. Fl. dull red.

4890. Piptadenia flava (Spreng) Benth.

Leguminosae

Around Aguadulce, along roads. Fl. greenish yellow.

4891. Eragrostis acutiflora

Graminae

Around Aguadulce, in swampy ground.

4892. Oryza sativa L.

Graminae

Around Aguadulce, in swampy ground

4893. Cyperus flavescens L.

Cyperaceae

Around Aguadulce, in swampy ground

4894. Rynchospora hirsuta Vahl.

Cyperaceae

Around Aguadulce, in swampy ground

4895. Lipocarpus sphaelata (Vahl) Kunth

Cyperaceae

Around Aguadulce, in swampy ground

4896. Cleocharis sulcata (Roth.) Nees

Cyperaceae

Around Aguadulce, in swampy ground.

4897

December

4th, 1911

?

Around Aguadulce, in swampy ground. Succulent. Fl. white

4898. *Rynchospora hirsuta* Vahl.

Cyperaceae

Around Aguadulce, in swampy ground

4899. *Eleocharis sulcata* (Roth) Nees.

Cyperaceae

Around Aguadulce, in swampy ground

4900. *Eragrostis Vahliei*

Graminae

Around Aguadulce, in swampy ground

4901

Graminae

Around Aguadulce, in lagoon.

4902. *Calea Pittieri* Rob. & Greenm.

Compositae

Around Aguadulce, in bushes. A semi-climbing shrub.

4903. *Gnania*

Around Aguadulce, in bushes. A vine

4904 *Marsdenia*

Cuíngara, Cuínbara -

Apocynaceae

Around Aguadulce, in bushes. A milky vine. Fl. urceolate, ^{corolla lobes} purple above, tube green outside. Flowers in dense axillary clusters4905. *Justicia carthagenensis* L.

Acanthaceae

Around Aguadulce. Fl. purple-violet.

December 4, 1911.

4906 *Arisanthera quadrata* Juss.

Melastomataceae

Around Aguadulce, in lagoons & swamps. Fl. pink.

4907

Scrophulariaceae

Around Aguadulce, in lagoon. Fl. white at base, purple at tips.

4908 *Hymenachne amplexicaulis* Nees.

Graminae

Around Aguadulce, in lagoon

4909. *Homalocenchrus hexandrus* O. K.

Graminae

Around Aguadulce, in lagoon

4910. *Andropogon fastigiatus* Sw.

Graminae

Around Aguadulce, in dry ground.

4911 *Sporobolus asarifolia* (Ager) R. & S.
Batatilla de cienaga.

Convolvulaceae

Around Aguadulce, in swampy ground. Stems short. Fl. purple-violet

4912. *Bradburya pascuorum* (Benth.) O. K. & S.

Leguminosae

Around Aguadulce, in swampy ground. Fl. purple

4913. *Rynchospora cyperoides* (Sw.) Mart.

Cyperaceae

Around Aguadulce, in lagoon.

4914. *Paspalum plicatulum* Michx.

Graminae

Around Aguadulce, in savannas.

4915

December 4, 1911.

Alismataceae

Around Aquadules, in lagoon. Fl. white.

4916. *Sacciolepis Myuros* Chase.

Gramineae

Around Aquadules, in lagoon

4917. *Lachne trachysperma*

Gramineae

Around Aquadules, in lagoon

4918. *Aeschynomene sensitiva* Sw.

Leguminosae

Around Aquadules, in swampy places.

4919

Around Aquadules

4920. *Sacciolepis Myuros* Chase

Gramineae

Around Aquadules, in swampy places

4921. *Rhynchospora hirsuta* Vahl.

Cyperaceae

Around Aquadules, in marshy places

4922. *Cyperonia panamensis* Pax. & Hoffm.?

Euphorbiaceae

Around Aquadules, in swamps. Fl. white

4923. *Rhynchospora barbata*

Cyperaceae?

Around Aquadules, in swampy places.

December 4, 1911

4924. *Fimbristylis diphylla* (Retz) Vahl.

Cyperaceae

Around Aquadules, in swampy places

4925. *Juncus*

Around Aquadules, in swampy places. Pet. 4, caducous. yellow.

4926. *Cyperus Haspan* L.

Cyperaceae

Around Aquadules, in swampy places.

4927. *Hyptis recurvata* Vait.

Labiatae

Around Aquadules, in wet places. Fl. purplish white

4928. *Gleoharis mutata* (L.) R. Br.

Cyperaceae

Around Aquadules, in wet places.

4929. *Limnocharis flava* Buckenra β minor Michel. *Alismataceae*

Around Aquadules, in wet places. Petals yellow, caducous.

4930. *Eragrostis*

Graminae

Around Aquadules, in wet places.

4931. *Arthropus compressus* Beauv.

Graminae

Around Aquadules, in wet places

4932. *Paspalanthus Lamarckii* Kunth

Eriocaulaceae

Around Aquadules, in wet places.

December: 4, 1911.

4933. *Dalechampia*

Euphorbiaceae

Around Aguadulce, climbing on bushes

4934. *Hyptis*

Labiatae

Around Aguadulce, in bushes. About 1.50 high. Fl. violet

4935. *Moronga* - *Moronga leptocarpa* (D.C.)

Leguminosae

Around Aguadulce, climbing on bushes. Fl. pinkish

4936

Around Aguadulce, in wet places. Fl. yellow. one at a time. Petals 3.

4937. *Pectis bonplandiana* H.B.K.

Compositae

Around Aguadulce, in wet places.

4938 *Solanum scabrum* Vahl Solanaceae

Around Aguadulce, in bushes. A shrub; fl. purplish white, Fr. orange red.

4939

Flacourtiaceae

Around Aguadulce, in "taillis". A small tree. Fl. yellowish white.

4840

Apocynaceae?

Around Aguadulce, climbing on bushes.

4841 *Eclites trifida* Jacq. Apocynaceae

Around Aguadulce, climbing on bushes. Fl. greenish white

December

4-5, 1911

4942

Rhynchanthera mexicana DC.

Melastomataceae

Around Aquadules, in wet places. Fl. large, pink.

4943

Cyperaceae

Around Aquadules, in wet places.

4944

Utriculariaceae

Around Aquadules, in wet places. Fl. yellow.

4945 *Burmannia capitata* (Walt.) Mart.

Polygalaceae

Around Aquadules, in wet places.

4946 *Schultesia Pohlana* Prog.

Gentianaceae

Around Aquadules, in wet places. Fl. yellowish pink.

4947 *Schultesia heterophylla* Mig.

Gentianaceae

Around Aquadules, in wet places. Fl. pink, large.

4948 *Marsdenia*

Apocynaceae

Around Aquadules, climbing on bushes.

4949 *Canisteriopsis schomburgkiana* (Benth.) C. B. Rob.

Malpighiaceae

Around Aquadules, in bushes.

4950 *Boreria latifolia* (Roth.) Schum.

Rubiaceae

Around Aquadules, in swamps. Fl. white. Seed red.

- December 5, 1911.
4951. *Lapium Moritzianum* Kotsch Euphorbiaceae Around Aguadulce, leaves from a young tree.
4952. *Mimosa panamensis* (Benth.) Standley Leguminosae Around Aguadulce, in savanas.
4953. Amaranthaceae Around Aguadulce, in stony savanas.
4954. *Bradburya pubescens* (Benth.) V. Ktze Leguminosae Around Aguadulce, ~~the~~ climbing on bushes.
4955. *Phoradendron rigidum* Urb. Loranthaceae Around Aguadulce, on Rubiacous (?) tree.
4956. *Phoradendron mucronatum* Kr. & Urb. Loranthaceae Around Aguadulce, on Rubiacous (?) tree.
4957. Euphorbiaceae Around Aguadulce, around white ants nests.
4958. *Indigofera suffruticosa* Mill. Leguminosae Around Aguadulce in savanas.
4959. *Paspalum cinereum* Humb. & Bpld. Graminae Around Aguadulce, in savanas.

December

5, 1911.

4960 *Eugenia acapulcensis* Steud. Myrtaceae?

Around Aguadulce, in savanas. A shrub.

4961. *Triumfetta Lappula* L.
Cadillo - Medicinal.

Ciliaceae

Around Aguadulce, outskirts of savanas.

4962

Leguminosae

Around Aguadulce, along ditches. Fl. bright yellow.

4963. *Cassia bicapsularis* L.

Leguminosae

Around Aguadulce, in bushes. A shrub, 2-3 m. high. Fl. bright yellow.

4964. *Eleocharis geniculata* R. Br.

Cyperaceae

Around Aguadulce, in water-ditches.

4965

Rubiaceae?

Port of Aguadulce, mangrove formation.

4966 *Conyza lyrata* HBK. Compositae
Lechuquilla

Port of Aguadulce, along road. About 1^m high, glutinose

4967. *Laguncularia racemosa* Gaertn.

Combretaceae

Port of Aguadulce, mangrove formation.

4968 *Avicennia bicolor* Steud.

Port of Aguadulce, mangrove formation.

December 5, 1911

4969. *Duricemia nitida* Jacq.

Verbenaceae

Port of Aguadulce, mangrove formation.

4970. *Alouan depressa* (Poir.) Kuntze

Leguminosae

Port of Aguadulce, along road. Fl. yellowish white

4971. *Gossypium*

Malvaceae

Port of Aguadulce, along road. Fl. pale yellow. 4 locked.

4972. *Dactyloctenium aegyptium* Richt.

Graminae

Port of Aguadulce, along road.

4973. *Echinochloa indica* Gaertn.

Graminae

Port of Aguadulce, along road.

4974. *Caesalpinia boricaria*?

Leguminosae

Port of Aguadulce, outskirts of mangrove formation. Unnamed. Fl. ?

Agallo - Black dye. The fruits picked ripe and on the ground, are dried & then "molidos, on the stone or in a pilon. The powder cooked with water gives the dye.

4975. *Bactris minor* Jacq.

Palmae

Port of Aguadulce, outskirts of mangrove formation.

Uvito, caña brava. Fruits edible, acidulate.

4976. *Bradburia pasuorum* (Benth.) O. Ktze

Leguminosae

Around Aguadulce, climbing on bushes.

4977. *Funaria clavata*

Asclepiadaceae

Around Aguadulce, climbing on bushes. Fl. white

(Jacq.) Schlechter.

December

5, 1941.

4978

Around Aguadulce, in water ditches. Fl. azure blue.

4979

Around Aguadulce, in water ditches. Fl. very small, in spikes. white.

4980. *Waltheria glomerata* Presl.

Sterculiaceae

Palo del soldado

Around Aguadulce, in outskirts of savanas. Fl. white.

4981. *Lophotocarpus guianensis* (H.B.K.) Smith

Alismataceae

Around Aguadulce, in water ditches. Pet. 3, white. Closed at 9 am. fully open at 11 am.

4982 *Marsypianthes chamaedrys* (Vahl) ^{Scrophular?}
~~Reutze~~

Around Aguadulce, in savanas. Fl. purple

4983. *Stylosanthes humilis* H.B.K.

Leguminosae

Around Aguadulce, in savanas.

4984

Silleniaceae

Chumico pedrro. Se saca una agua limpida riziando el prodi-
miento usado ^{en} para el agua, y dicha agua es soberana para el alivio de dolores de ojos.

Around Aguadulce, near salt works. Fl. yellow.

4985. *Bedrela mexicana* Roem.

Meliaceae

A bedro

Around Aguadulce in pastures. Small tree.

4986. *Justicia carthagenensis* L.

Acenanthaceae

Around Aguadulce. Fl. purple.

December 6, 1911

4987. *Lasiacis compacta* Hitchc.

Graminae

Around Aguadulce in bushes.

4988. *Bumelia chovata* Sw.

Sapotaceae

Around Aguadulce, on outskirts of salt works. Fl. white.

Caimitillo - Fruit edible - Wood specimen.4989. *Coccoloba*

Around Aguadulce, on lower plains around salt works.

Uvero. Las frutas se muen y de ellos se hace chicha. Photo 4x5.

4990. *Jacquinia macrocarpa* Cav.

Theophrastaceae

Near Aguadulce, around salt works. A ~~tree~~ shrub, 2-3' high.

{ Limoncillo - Perito find of the fruit and people too.

{ Manzanillo de pica

4991

Flacourtiaceae

Around Aguadulce, en las llanuras.

Mostreneo

4992. *Conalaria hexandra* Schum.

Rubiaceae

Around Aguadulce, in savanas.

4993. *Bursera (Elaphrium) panamensis* Pittier. Burseraceae

Around Aguadulce, near salt works (lower level).

Almácigo de cruz. La resina se usa para quitar inflamaciones. Se dice también que la infusión de los cogollitos es diurética.

4994. *Randia tetrandra* D.C. ??

Rubiaceae

Around Aguadulce, on outskirts of savanas.

Torquino amargo. Infusión para curar la toz.

4995. *Conocarpus erectus*

Around Aguadulce near salt works. Mangrove formation.

Mangle Torcido

4996

December 6, 1911.

Graminae Near Aguadulce, around salt works.

4997 *Scimmu micranthum* Willd Labiatae
Albahaca de vaca. La infusión se usa para combatir inflamaciones.
y curar herpes.

Near Aguadulce, on lower plain.

4998 - *Lasiacis globosa*. Hitchc.

Graminae Near Aguadulce, on lower plain

4999 *Metastelma pedunculare* Asclepiadaceae
Dcne.

Near Aguadulce, on lower plain.

5000

Euphorbiaceae Near Aguadulce, on lower plain

Pie' de niño. Milk very caustic - Hierba milagrosa (San Felipe)
3 hojas en té, sirven para curar la toz.

5001. *Miconia rubiginosa* D.C.

December 7, 1911.

Friega platos. platos

Melastomat.

Between Pouri' and Rio Chico, ^{road to Nata'} a treelet. Fl. white.

5002 - *Amphilophium paniculatum* H.B.K.

Biognoniaceae

Between Pouri' and Rio Chico, climbing on bushes. Common. Fl. purple +
white or pale inside.

5003 - *Arrabidaea pachycalyx* Sprague

Biognoniaceae

Between Pouri' and Rio Chico, climbing on bushes. Fl. violet purple.

December 7, 1911.

5004. *Arrabidaea rotundata*
(DC.) Bur.

Bignoniaceae Between Pori and Nata. A vine.

5005. *Plumbago scandens* L.

Plumbaginaceae Between Pori and Nata, in bushes. Fl. pale blue.

5006. *Combretum lepidopetalum* Poir.

Combretaceae

Pateno. Extensively used in building in place of nails, to bind the rafters of roofs, etc. - Cepillo (San Felix).

Between Pori and Nata. Fl. always yellow. Seen everywhere between Aguadulce and Nata.

5007. *Combretum hexandra* Schum.

Rubiaceae

Between Pori and Nata. Fl. white. A small tree

5008. *Aristolochia*

Aristolochiaceae

Between Pori and Nata. A vine. Fl. (labellum) yellow.

5009. *Githonia rotundifolia* (Muhl.) Blake
(Arbo de muerto Remedios)

Compositae

Between Pori & Nata, forming immense colonies in fertile alluvial land. Fl. yellow

5010. ~~Rhus~~

Connarus panicum Griseb

Sapindaceae

Between Nata & Cortez. A tree. Fl. white

5011. *Tabernaemontana grandiflora* Jacq.
Huevos de perro.

Apocynaceae

Between Nata & Cortez. A treelet 2-3 m. high. Fl. bright yellow.

5012. *Citiera longipedunculata* Cogn.

Cucurbitaceae

Between Nata & Cortez. A vine.

5013. *Chamaecrista brevipes* (D.C.) Greene
Gen in Remedios - Med.

5014. *Cassia pauciflora* H.B.K.

5015. *Hyptis* &
Hierba de morriña.

5016

5017. *Heliocharis arborescens* Lemmon. *Ciliaceae*

5018. *Andropogon festigiatus* Sw.

5019. *Aristida setifolia*

5020. *Paspalum stellatum* Humb. & Bped.

5021. *Axonopus appendiculatus* Beauv.

December 7, 1911.

Leguminosae

Between Cortez and Cruces de Churrué, in stony hills, abundant & characteristic. Fl. bright yellow.

Leguminosae

Between Cortez & Cruces de Churrué, in stony places. Fl. orange red, large

Labiatae

Between Cortez & Ola', everywhere in stony hills. 0.30-1.20 high, fl. purplish blue. Polysperous.

Compositae

Between Cortez & Ola', in stony hills, common. Fl. purplish blue

Graminae

Between Cortez & Ola', in dry hills.

Graminae

Between Cortez & Ola', in dry hills

Graminae

Between Cortez & Ola', in dry hills

Graminae

Between Cortez & Ola', in dry hills.

December 7, 1911.

5022. *Meibomia aspera* (Poir.) Ktze.

Leguminosae

Between Cortez & Olá, in wet places. Fl. purple

5023. *Hyptis suaveolens* (L.) Poit.
San Juanillo

Labiatae

Between Cortez & Olá, replaces *H. macrodon* in hills. Fl. blue.

5024. *Clusia minor* L.
Copey

Guttiferae

Between Cortez & Olá, a small tree in bushes. Fl. pinkish white

5025

Euphorbiaceae

Between Cortez & Olá, in bushes. A shrub. Fl. white

5026. *Aphelandra Deppeana* Schiede
straight, slender
Crompito - The stems are used for pipe-stems.

Acanthaceae

Between Cortez & Olá, in bushes. A shrub, up to 2.50 high, erect. Fl. pink.

5027. *Rhynchosanthus mexicana* DC.
Flor del diablo. The devil's hand to be seen in the flowers (stamens) or in the fruit!

Melastomataceae

Between Cortez & Olá, in damp places. Up. to 1.20 high. In colonies. Fl. purplish pink

5028. *Lagenaria vulgaris* Ser.
Tula de Mateo

Cucurbitaceae

Around Olá in savannas. Fr. round or slightly depressed, up to 40 cm. diam.

5029. *Elaterium ciliatum* Cogn. Cucurbitaceae
Gallotillo - Norbo. Binarrin (S. Felix).

Around Olá, in cool bushes. Fl. bright yellow.

5030. *Lobelia splendens* Willd.
Flor de garza

Lobeliaceae

Near Olá, in river. Fl. scarlet red.

December 7-8, 1911

5031

Euphorbiaceae Around Pla', in meadows.

5032

Lythraceae Around Pla', on stones in river. Fl. purple.

5033. *Viguiera tenuis* Gray.

Compositae Around Pla', in dry, sunny places. Fl. white

5034. *Piper dumeticola panamense* C. DC.
Gusanillo

Piperaceae Around Pla', in bushes. A low shrub.

5035 *Stylogue laevis* (Pers.) Mez

Myrsinaceae Around Pla', along river. Fl. white

5036. *Aphelandra pectinata* Willd

Alcantaceae Around Pla', along river. Fl. pink.

5037. *Sorghastrum incompletum* Nash.
Niño de Dios

Graminae Around Pla', in dry places on road to Picacho

5038. *Psychospora armerioides* Presl.
Arroy de Sabana

Cyperaceae Around Pla', in dry places on road to Picacho.

5039. *Curtia tenella* (Mart.) Cham.

Gentianaceae Around Pla', in dry places on road to Picacho.

December 8, 1911.

5040. *Goccyxpselum aureum* (Spring) E. Rubiaceae Around Ola', in cool places on road to Picacho. Fl. pinkish white. Berries azure-blue.
5041. *Tridax procumbens* L. Compositae Around Ola', near upper limit of forest. Fl. pink.
5042. *Muhlenbergia distichophylla* Kunth. Graminae Around Ola', on road to Picacho.
5043. *Eriochloa distachya* Graminae Around Ola', on road to Picacho.
5044. *Cracca leptostachya* (D.C.) Rusby Leguminosae Around Ola', on road to Picacho. Fl. purplish.
5045. *Pterolepis trichotoma* (Rottb.) Cogn Melastomat. Around Ola', on road to Picacho. Fl. pink.
5046. *Pereilema crinitum* Presl. Graminae Around Ola', on road to Picacho.
5047. *Aristida setifolia* Graminae Around Ola', on road to Picacho.
5048. *Meibomia supina* (Sw.) Britton Pegadara Leguminosae Around Ola', on road to Picacho. Fl. pale purple.

December 8, 1911

5049. *Hyptis savannarum* Briz. Labiatae Around Ola', from village to top of Picacho.
- 5050 Filices Around Ola', in wet talus along path to Picacho.
5051. *Elyonurus tripsacoides* Humb. & Bpald. Graminae Around Ola', on road to Picacho.
5052. *Oxanopus appendiculatus* Graminae Around Ola', near upper limit of woods on Picacho.
- 5053 Compositae Around Ola', near upper limit of woods on Picacho.
5054. *Andropogon brevifolius* Graminae Around Ola', on road to Picacho.
5055. *Chloris* Graminae Around Ola', on road to Picacho.
5056. *Eupatorium Sinclairii* Benth. Compositae Around Ola', on road to Picacho, in bushes. Fls. bright yellow.
Clavellin de monte.
- 5057 Turneraeae Around Ola', in bushes, corolla plane in middle of day (i.e. very broadly open).

December 8, 1911.

5058. *Polygala hygrophila* H. B. K.

Polygalaceae

Upper zone of Picacho de Ola'. Fl. white

5059

Compositae

Upper zone of Picacho de Ola'. Fl. purple

5060 *Koeleria argyrostigma* (Hook.) Regel
Gramineae

Gorge at headwaters of Cose' R., on rocks. Leaves white spotted. Fl. white
small. Another species with very large purplish blue fl. (deciduous) was found
higher up, but lost subsequently.

5061

Selaginellaceae

Gorge at headwaters of Cose' R., on rocks.

5062. *Muhlenbergia distichophylla* Kunth.

Gramineae

Picacho de Ola', upper belt.

5063. *Paspalum pectinatum*.

Gramineae

Picacho de Ola', upper belt.

5064. *Paspalum stellatum* Humb. & Bpold.

Gramineae

Picacho de Ola', upper belt

5065. *Campulocis planifolia* Presl.

Gramineae

Picacho de Ola', upper belt

5066. *Aristida setifolia*

Gramineae

Picacho de Ola', upper belt.

December 8, 1911.

5067- *Indigofera lepedezoides* H.B.K.

Leguminosae

Picacho de Ola', upper belt. Fl. dull red.

5068. *Rytidix granulatis* Steud.

Graminae

Picacho de Ola', upper belt.

5069

Picacho de Ola', upper belt. Fl. purple.

5070- *Polygala paludosa* Steud.

Polygalaceae

^{upper belt}
Picacho de Ola', Fl. pink.

5071- *Cymbopogon tractatus* Hitchc.

Graminae

Picacho de Ola', upper belt.

5072- *Hyptis laurifolia* Pers.

Labiatae

Picacho de Ola', upper belt. Fl. white

5073

Alternanthera

Picacho de Ola', on top. Fl. white.

5074- *Cosmibuena ovalis* Standley.

Rubiaceae

Headwaters of Gose' R., near upper limit of forest. A low tree. Fl. white
turning to brown.

Postmura - Hoja para madurar naidos, y reventarlo

5075- *Piper grandifolium* H.B.K. forma b.

Piperaceae

Headwaters of Gose' R., ^{in gorge.} near upper limit of forest.

70
5076. *Styrax argenteum* Presl.
Yahumero

5077. *Polygala paniculata* L.

5078. *Loeselia involucrata* Don.

5079. *Clomenocoma montana* Benth.

5080. *Meibomia spiralis* (Sw.) Kuntze.

5081

5082. *Piretia scandens* Vent.

5083

5084. *Pectis cepillaris* D.C.
Romero de savana

December 1, 1911.

Styracaceae

Headwaters of Cose' R., near upper limit of forest. A thick set,
low tree, with abundant flowers.

Polygalaceae

Headwaters of Cose' R., near upper limit of forest, in open places.
Fl. blue.

Polemoniaceae

Upper belt of forest of Picacho de Ola', in bushes. Fl. yellow.

Compositae

Upper belt of forest at Picacho de Ola'. Fl. fire-red.

Leguminosae

Upper belt of forest at Picacho de Ola'. Fl. pinkish white.

Filices

Upper belt of forest, Picacho de Ola'.

Leguminosae

Upper belt of forest. Picacho de Ola'. Fl. yellow.

Filices

Upper belt of forest, Picacho de Ola'.

Compositae

Around Ola', in savanas. Common

5085. *Xylocarpus frutescens* - var. *glabrata*
Malaqueto hembra

5086

5087. *Hygrophila guianensis* Nees

5088. *Cassia alata* L.
Laureño

5089. *Acacia*

5090. *Annona*
Anon del interior.

5091
Romero de ciénaga

5092. *Aeschynomene americana* L.

5093

December 7-8, 1911.

Annonaceae Around Ola' on outskirts of savannas. A treelet.

Gerophalacium Around Ola', in ditches. Fl. white.

Acanthaceae Around Ola', in water-ditches.

Leguminosae Around Ola', in wet places

Laportaceae Around Ola', very large trees. Fl. sparse on branchlets(?).

Annonaceae Around Ola'. Fl. 3-petaled, greenish. Fr. almost smooth, pinkish.

Around Ola', in water-ditches. Older(?) leaves less divided.
Thfl.?

Leguminosae Around Ola', in bushes and water-ditches.

Euphorbiaceae Around Ola', in savannas. Dwarf. Fl. white

December 29, 1911.

5094. *Machaerium Seemannii* Benth. Leguminosae Near Cruces de Churucé, between Ola' & Bortega. A small tree.
- 5095 Convolvulaceae Near Cruces de Churucé, between Ola' & Bortega. Fl. blue, small.
- 5096 Leguminosae Near Cruces de Churucé, between Ola' & Bortega. A small tree.
- 5097 Melastomataceae Hills between Ola' & Bortega, in stony places.
- 5098 Leguminosae Hills between Ola' & Bortega. Fl. yellow.
5099. *Contoubea spicata* Gentianaceae Hills between Ola' & Bortega. Common.
Baomito de cerro. Medicinal. Infusion se da a' las resaca paridas
cuando se pasan
5100. *Parosela domingensis* (D.C.) Millsp. Leguminosae Hills between Ola' & Bortega. Fl. small, pink.
- 5101 Leguminosae Banks of R. Chico, at Paso del Arado. A tree with flat crown.
Fl. yellowish, covered with swarms of bees.
5102. *Isacarea revoluta* Myrsinaceae Between Paso del Arado & Porri, a treelet. Fl. white.
Uvito (H.B.K.) Standl.

December 19, 1911

5103. *Calea Pittieri* Rob. & Greenm.

Compositae

Between Paso del Arado & Pouri. Common everywhere

5104 *Crestidium rufescens*
Blanch.

Leguminosae?

Hills and dry places around Paso del Arado.

5105. *Schizolobium superbum* Pitt.

Leguminosae

Near Pouri. A large tree. Fl. yellow.

Ayello macho - Heart yellow. A fine, hard timber

December 11, 1911

5106

Schwaeria euphroides (Benth.) Cogn.

Melastomataceae

Isla Uva, Contreras Archipiélago. Fl. pinkish white.

5107

Limbricaria (L. Folia):

Loganiaceae

Isla Uva, Contreras Archipiélago. On rocks. Fl. purplish white

5108

Convolvulaceae

Isla Uva, Contreras Archipiélago. Fl. large, pink.

5109. *Begonia uvana* C. DC.

Begoniaceae

Isla Uva, Contreras Archipiélago. On wet rocks.

5110 *Kohleria*

Gesneriaceae

Isla Uva, Contreras Archipiélago. On wet rocks. Fl. red.

5111-

Gesneraceae Isla Uva, Contreras Archipelago. Fl. red.

5112 - *Piper marginatum* Jacq.
Hinojillo (S. Felix).

Piperaceae Isla Uva, Contreras Archipelago

5113. *Alphelandra pectinata* Willd.

Alcanthaceae Isla Uva, Contreras Archipelago.

5114-

Zanudo (San Felix)

Capparidaceae Isla Uva, Contreras Archipelago. Fl. pinkish white

5115. *Bletia verecunda* R. Br.

Orchidaceae Isla Uva, Contreras Archipelago.

December 14th 1911.

5116. *Miconia argentea* D.C.

Canillo (David); Dos caras (Los Santos)

Melastomat. Pedregal de David, a small tree. Fl. white.

5117 *Nectandra pichurim* (HBK.) Mez
Ligua canelo

Lauraceae Pedregal de David, a small tree. Fl. white.

5118

Camibar.

Leguminosae Horoncitos. A medium sized tree.

5119. *Inga laurina* Willd.

de América.
Leguminosae

14-16, 1911

Boca Chica near Horconitos. A small tree along shore. Fl. white.

5120. *Stylogyne laevis* (Desf.) Mez
Uruto

Myrsinaceae

Boca Chica de Horconitos. Fl. white.

5121. *Diokea guianensis* Benth.

Leguminosae

Boca Chica de Horconitos. A vine; fl. purple.

5122. *Lippia geminata* H.B.K.

Verbenaceae

Boca Chica de Horconitos.

Mastranto. Med. y Armático.

5123.

Compositae

Boca Chica de Horconitos

Alrojo

5124

Piperaceae

El balugal de San Felix

5125 *Echites peltata* Vahl
Guingara

Apocynaceae

El balugal de San Felix.

5126. *Begonia serratifolia* C.DC.

Begoniaceae

San Felix de Remedios.

Flexionero. Med. en fricciones contra reumático.

5127. *Instencia Houstoni* L.

Moraceae

San Felix de Remedios

Pie' de gallo. La raíz machacada se usa para curar mordeduras de bichos

December 16, 1911.

5128

Hierba de sapo

Euphorbiaceae

San Felix de Remedios. Climbing on bushes.

5129. *Arrabidaea pachycalyx* Sprague

Bignoniaceae

San Felix de Remedios. A vine, climbing on high trees. Fl. pinkish purple.

5130 *Banisteria bucheyana* (Juss.)
C. B. Rob.

Malpighiaceae

San Felix de Remedios. A treelet in forest.

5131. *Piper geniculatum* Sw., forma d, C. B. Rob.

Piperaceae

San Felix de Remedios.

5132

Anonaceae

San Felix de Remedios. A large tree, with hanging branches.

5133. *Cassia spectabilis* S. C.
Frijolillo.

Leguminosae

San Felix de Remedios, outskirts of forests. A small tree.

5134

Lelaginella

San Felix de Remedios in cool forests

5135. *Trichomenes*

San Felix de Remedios, in cool forests.

5136.

Meleostomaceae

San Felix de Remedios, in cool forests. Fl. white.

5137

Diciembre 16, 1911

Piperaceae

San Felix de Remedios, in woods.

5138 *Niconia minutiflora* (HBK.)
DC.

Melastomataceae

San Felix de Remedios, in outskirts of forests. A little tree. Fl. bluish

5139 *Paullinia alata* Sm.

Leguminosae

San Felix. A vine.

5140 *Trichileia hirta* L.

Meliaceae

San Felix. A small tree, in forest.

5141

Pino blanco, placeta

Leguminosae

San Felix. A vine. Fl. blanca.

5142

Pica lengua

Placourtiaceae

San Felix. A small tree. Fl. white

5143 *Peperomia glabella* A. Dietr.

Piperaceae

San Felix, along river. Epiphytic.

5144 *Heterotrichum octanum*
(Bonpl.) DC.

Melastomataceae

San Felix, in bushes. Fl. large, white.

5145 *Nectandra globosa* (Aubl.)
Liqua blanco Mez

Lauraceae

San Felix, a tree on outskirts of savanna. Fl. white.

5146. *Cassia baccilaris* L. fil.

December
Leguminosae

16, 1911

San Felix, in forest. A small tree. Fl. pale yellow.

5147. *Cassia falcinella* Standley

Leguminosae

San Felix, in forest. A shrub or treelet. Fl. bright yellow.

5148. *Borreria latifolia* (Aubl.) Schum.

December
Rubiaceae

17, 1911

San Felix, in pastures. Fl. bluish white.

Hierba de puerco. Invade potreros alrededor del pueblo, junto
en Agütes.

5149. *Paspalum multicaule*

Graminae

San Felix, in savanas.

5150. *Calathea*

Bijao cuero de macho. Usan la hoja para envolver tabaco; tira
la punta de no echar pelusa.

Cerro de la Plata, near S. Felix. Fl. yellow.

5151

Succanica

Cyclanthaceae

Cerro de la Plata, near S. Felix, in forest.

Dec. 17, 1911

5152 *Chamaedorea Weudlandiana* (Oerst.) Hump.

B. Se come la espiga tierna - es el palmito dulce de C. R.
ind.

Cerro de la Plata, near S. Felix, in forest. About 2.5' high, up to 3 species.

5153. *Melastoma*

Siroulaca blanca. Very good feed for cattle.

Cerro de la Plata, near S. Felix, in clearings

5154- *Meibomia spiralis* (Sw.) Kunth

December

17, 1911.

Leguminosae

Cerro de la Plata near San Felix, in clearings. Fl. small, white. Stems 1^m-1.5 high.

5155- *Saramea occidentalis* A. Rich

Rubiaceae

Huanto. A very hard wood.

Cerro de la Plata, near San Felix, in woods. A small tree, with straight trunk. Common in woods.

5156-

Monimiaceae

Cerro de la Plata, near S. Felix, in woods.

Pasmo de agua. Infusum caliente ^{en baños} para curar pasmo que sobreviene en heridas cuando se mojan. Las hojas embarradas de manteca para dolores de cabeza.

5157

Urticaceae

Cerro de la Plata near S. Felix, in woods. A small tree

Ortiga blanca

5158- *Piper tiliaefolium paulowniaefolium* B. & H. Piperaceae

Cerro de la Plata near S. Felix, in woods. A tuclat.

5159- *Piper auritum amplifolium* B. & H.

Piperaceae

Cerro de la Plata near S. Felix, in woods. Sublignose, 2-3m. high.

Monca blanco

5160- *Piper pellatum* L.

Piperaceae

Cerro de la Plata near San Felix, in woods. Sublignose or rather herbaceous

Hinojillo

5161

Filices

Cerro de la Plata near S. Felix, in woods

5162

Filices

Cerro de la Plata near S. Felix, in woods.

December

17, 1911.

5163

Filices

Cerro de la Plata near S. Felix, in woods.

5164. *Streptochaeta sodiroana*

Graminae

Cerro de la Plata near S. Felix, in woods.

Cansa-perro. Usado para quitar el pelo del cuerpo.

5165

Filices

Cerro de la Plata near S. Felix, in woods. Arborescent, scandent.

5166

Filices

Cerro de la Plata near San Felix, in woods.

5167

Palmae

Cerro de la Plata near San Felix, in woods. Stem very short. Spikes simple mostly with ♀ fl. at base ♂ at top. Often unsexmate.

Palma negrita

5168. *Salvia occidentalis* Sw.

Labiatae

Cerro de la Plata near San Felix, in clearings. Fl. azure blue

Cansa-perro

5169. *Lida carpinifolia* L.

Malvaceae

Cerro de la Plata near S. Felix, in clearings. Fl. yellow.

Escobilla

5170.

Simulacrae

Cerro de la Plata, near S. Felix, in clearings.

5171. *Miconia fulva* D.C. var. ?

Melastomataceae

San Felix, in forests. Small tree, up to 10m. high. Trunk straight. brown elongate.

Palo negro. Hard wood, almost indestructible.

December

17, 1911

5172 *Miconia albicans* (Sw.) ^{Melastomataceae}
Trenia

San Felix, in woods, treelet about 1.5 high.

5173

?

San Felix, in woods. A pyramidal symmetrical treelet. Fl. white

5174

Solanaceae

San Felix, in woods. A treelet with flat crown. Fl. white.

5175 *Miconia nervosa* (Sw.) ^{Melastomataceae}
Trenia

San Felix, in woods. A treelet. Fl. white on red rachis.

5176. *Serjania grandis* Lam.

Sapindaceae

San Felix. A vine climbing on trees at outskirts of savanna. Fl. white.

5177

Perico - No use

Compositae

San Felix, in woods. A windrued tree, 15-20m. high. Fl. white.

5178. *Bertiera guianensis* Aubl.

Rubiaceae

San Felix, in outskirts of woods. Rachis red, fl. orange yellow

5179. *Palicourea parviflora* Benth.

Flor de Guapaim (verify number!)

Melastomataceae

San Felix, in bushes. A treelet, 2-3m. high. Fl. pink.

5180

Fungi

Cerro de la Plata near San Felix, on dry rocks

December

17-18, 1911.

5181

Fungi

Cerro de la Plata near San Felix. On dry wood.

5182

Fungi

Cerro de la Plata near San Felix. On dry wood.

5183

Fungi

Cerro de la Plata near S. Felix. On live large tree wots.

5184. *Eragrostis amoena* Presl.

Graminae

Around San Felix, in savanas.

5185. *Paspalum pedunculatum*

Graminae

San Felix, in savanas.

5186 *Piraemnia latifolia* Tul. Meliaceae?

San Felix, in dry woods. A treelet. Fl. red, very small.

5187

Filices

San Felix, in dry woods.

5188. *Eupatorium macrophyllum* L.

Compositae

San Felix in clearings. Fl. white.

5189

Piperaceae

San Felix, in dry woods along creek. A treelet.

December 18, 1911.

- 5190 *Curatella wrightii* (Vauqu.) Riley *Ordnaceae* San Felix, in woods. A shrub or small tree. Fl. bright yellow.
- 5191 *Filices* San Felix, in woods. Rather common in places.
- 5192 *Filices* San Felix, in woods.
- 5193 *Scaphyglottis brachiata* Schltr. *Orchidaceae* San Felix, epiphytic on *Nesaea*. Petals purplish white. Column purple.
- 5194 *Aristida capillacea*. *Graminae* San Felix, in savanas. Common.
- 5195 *Sporobolus ciliatus* *Graminae* San Felix, in savanas. Common.
- 5196 *Styracaceae?* San Felix, in woods. A small tree.
Cabo de Hacha. Small tree with oblique trunk, not over 25 cm. in diam; used
as indicated by the name, for ax handles.
- 5197 ? San Felix, in woods. A medium sized tree. Fl. white, pet. 5, st. 10.
Calyx persisting, enlarging with fruit?
- 5198 *Polizaea* *Filices* San Felix, in dry woods.

5199

December 18

Compositae San Felix, in clearings. Fl. purplish white.

5200

Gesneraceae San Felix, in cool places along brook. Corolla yellow with dark
red lines.5201. *Leandra mexicana* (Naud.) Cogn. Melastomataceae San Felix, in bushes. Fl. pink.5202. *Chaetochlamys panamensis* Lindau Acanthaceae San Felix, in bushes. Fl. purple.

5203.

Graminae San Felix, in bushes.

52

5204. *Ichnanthus pallens* Munro. Graminae San Felix, in bushes5205. *Oplismenus cristatus* Presl.

Gramineae San Felix, in bushes

5206. *Plyra arundinacea*

Graminae San Felix, in bushes

5207

Rubiaceae San Felix, in bushes. Corolla pale yellow.

December 18, 1911.

5208

Filices

San Felix, in woods

5209

Filices

San Felix, in woods

5210. *Malvastrum arborescens* Hoanai Baker

Malvaceae

San Felix, in wood. A treelet. Fl. pink.

5211

Filices

San Felix, in wood

5212

Filices

San Felix, in wood

5213

Filices

San Felix, in wood

5214. *Watsonanura tinajita* (Seem.) O. K.
n.v. tinajita

Rubiaceae

San Felix, in woods. Fl. yellow.

5215. *Begonia leptopoda* C. D. C.

Begoniaceae

San Felix, on shady banks.

5216. *Chamaecrista flavicoma* (H. B. K.)

Leguminosae

San Felix, in clearings. Fl. yellow.

December 1911.

5217. *Solanum hirsutissimum* Solanaceae
Studd.

Along R. Tapi, near S. Felix. Calyx whitish.

5218. *Crataeva Tapia* L.

Capparidaceae

Along R. Tapi. A tree. 40 cm. thick. flat crown. Fl. purplish white.

5219

Euphorbiaceae

Along R. Tapi. A tree. Fl. white.

5220. *Orthocladia variflora* Beauv.

Graminae

Along R. Tapi, in woods.

5221. *Aspasia epidendroides* Lindl.

Orchidaceae

Along R. Tapi, epiphytic in woods. Fl. purplish white.

5222. *Achyranthes*

Amarantaceae

Pega-pega. Buen pasto, rebuscado por el ganado
Along R. Tapi, in woods.

5223. *Sobralia*

Orchidaceae

Along R. Tapi, epiphytic. Fl. pink.

5224. *Peperomia glabella* A. Dietr.

Piperaceae

Along R. Tapi, epiphytic

5225. *Phaseolus hirsutus* Mart.

Leguminosae

San Felix, in clearings. Fl. yellow.

5226 *Bumelia*

December 1911.
Malpighiaceae

Rio Tupi, a shrub. Fl. yellow. Fr. orange red.

5227 *Sorghastrum incompletum* Nash. Graminae

San Felix, in clearings.

5228 *Oncoba laurina* Warburg.

Flacmoriaceae

(~~Alchornea~~) Carbonero - Good timber, not very common & little used.

San Felix, in light wood. A mid-sized tree, 12-15^m high, 30-35 cm. diam. Branching radiate, beginning 3m. above ground. Fr. ^{green} pyramidal. Fl. white.

5229 *Platypodium mazonianum* Biltz
Caruera

Leguminosae

San Felix, in wood. A very large tree.

5230 *Leptanthes pallens* Munro

Graminae

San Felix, in savanas

5231 *Panicum lacum*

Graminae

San Felix, in savanas

5232 *Axonopus chrysodactylum*

Graminae

San Felix, in savanas.

5233 *Schulthesia lisianthoides* (Griseb.) O. K.

Gentianaceae

Canchalagua - Pefri-pago, emenagogo, y antibilioso.

San Felix, in savanas. Fl. first yellowish, then pink

5234 *Diphyssa carthagenensis* Jacq.

Leguminosae

Macano -

San Felix, in savanas, and around houses.

Is it the same than in Chapo & C.R.?

Vincetoxicum viridiflorum (Mey.) Staudl.
5235. *Gmolobus* *Asclepiadaceae*

December

21, 1944.

Between San Felix & Dupi, in clearings. A vine. Fl. green.

5236

Aristolochia

Between San Felix & Dupi, in clearings. Larkspur yellow. Dotted with dark purple. Inner tube, dark purple spotted with yellow.

5237. *Solanum ellipsoideibaccatum* v. *fiatellum* Bitter. *Solanaceae*
Gallote. (Fedd. Rep. 1914, p. 173).

Between San Felix & Dupi, in clearings. Bearing of capsicum. Fruits void, \pm 5 cm. long. 3 cm. diam, striped green & yellow.

5238. *Cestrum pauciflorum* Steud. *Solanaceae*
Hiede-hiede. Despende un perfume muy fuerte durante la noche.

Along R. Dupi. A small tree. Fl. greenish yellow.

5239. *Ficus glabrata* H.B.K.
Higuera

Moraceae

Along R. Dupi. A large tree. Fr. long pendulous.

5240. *Habenaria maculosa* Lindl.

Orchidaceae

Along R. Dupi. Terrestrial. Fl. white.

5241. *Bradburya pubescens* (Benth.) O. Kuntze *Leguminosae*

Along R. Dupi. A vine. Fl. purple, tinged with yellow.

5242

Filices

Along R. Galique.

5243

Copretella

Anonaceae

In forests around S. Felix. A small tree. Fr. red when ripe.

Photo

December 21, 1911

5244. *Rynchospora cephalotes* (L.) Vahl.
Hierba cabeza

Cyperaceae San Felix, in bushes

5245. *Scleria reflexa* H.B.K.
Cortadera

Cyperaceae San Felix, in bushes. Climbing.

5246 *Clusia rosea* L.
Cope

Guttiferae San Felix, in woods. A tree \pm 20 m. high. Brown fls. Fl. pinkish white.
Fr. in alcohol.

5247. *Panicum costaricense* Hackel.

Graminae San Felix, in cool places in woods.

5248. *Hieronymia alchorneoides* Frere Allemão
Zapatero

Euphorbiaceae San Felix, in woods. A mid sized or large tree.

5249 *Clidemia rubra* (Aubl.) Mart.
Hoya peluda. Fr. edible

Melastomataceae San Felix, in bushes, in many places. Fl. pinkish. Fr. bluish black. An erect shrub.

5250 *Clidemia neglecta* Don
Hoya peluda. Fr. edible

Melastomataceae

San Felix, in shady bushes. Infl. hanging. Corolla white. A shrub.

5251. *Condemia corymbosa* DC.

Bignoniaceae Rubiacae

San Felix, in shady, cool bushes along creek. A small tree, with rising branches. Corolla green inside, purplish outside.

5252

Compositae

San Felix, climbing on trees in many places. Fl. white.

December 22, 1911

5253

Lacistomataceae

San Felix, in dry wood, a small tree.

5254. *Palicourea parviflora* Benth.

Rubiaceae

San Felix, in woods. A shrub or small tree(?). Corolla yellow.
Plethys orange yellow.5255 *Virola* ? *Warburgii* Pittier
Bogamani.

Myristicaceae

San Felix, in woods. Apparently a large tree. Fl. collected in ~~stems~~
tree, not open. Common in woods. Tree pyramidal, up to 30m high,
with radiate ramification. Photo.5256 *Casipouia javitensis* HBK. Flacourtiaceae
MauroSan Felix, in woods. A ^{common} treelet. Fl. white.5257. *Eriosema simplicifolium* (H.B.K.) Walp. Leguminosae

San Felix, in dry savannas. Fl. yellow.

5258 *Miconia pteropoda* Benth. Melastomataceae

San Felix, in woods, a small tree. Fl. white.

5259. *Andropogon festigiatus* Sw.

Graminae

San Felix, in savannas.

5260. *Miconia rubiginosa* D.C.

Melastomataceae

Canillo de cerro. Madera muy dura y dura de la, usada para
postes de cercas.San Felix, in dry woods. Fl. white. A treelet or a shrub, 2-3m.
high.

5261.

Melastomataceae

San Felix, in dry woods. Fruits in dense spike like clusters, bluish
black.

December

23, 1911.

5262. *Piper grandifolium* H.B.K.

Piperaceae

San Felix, in woods, sometimes a little tree, but mostly a shrub.

5263. *Copaifera skiriguensis* Pitt.
Canibar, caniba, caniva.

Leguminosae

San Felix, in woods. A large tree, trunk up to 1.20 diam & 20" high.
brown flat. Photo.

5264. *Didymopanax Morotoni* Dene & Planch. Arelaceae

San Felix, in woods.

Pava - Used in boards. Trunk straight, reaching sometimes 50 cm. in diam.
and 20 m. in height. Bark grayish, almost smooth. Crown depressed. No heart, thick pit.

5265. *Miconia fulva* H.C., var.

Meastomat.

San Felix in woods. A small, 7-8" high tree. Fl. white.

5266. *Peperomia*

Piperaceae

San Felix, in woods, in rotten trunks

5267. *Vitex floridula* Buchs. & Walpers. Verbenaceae

San Felix, in woods.

Guaja - Rather common. Trunk straight, but uneven and sulcate. Bark
gray. Max. diam = 1 m. Branching rather low and ascending. Keeps long in earth.

Ra

5268. *Egloboium Stachyobium* Hemsl.

Orchidaceae

San Felix, in woods. Epiphytic.

5269

?

San Felix, in woods. A tree 30 cm. diam, ~~10~~ 11 m. high, more. Limbs long.
slightly hanging.

5270. *Inga Roussoviana* Pittier sp. n.

Leguminosae

San Felix, in woods. A small tree. Fl. white.

Guavo

5271

Raiella

Rubiaceae

San Felix, in woods.

5272. *Schnanthus pallens* Muero.

Gramineae

San Felix, in woods.

5273. *Enterolobium Schomburgkii* Benth. Leguminosae
Harino - Fr. eaten by cattle.San Felix, in dry woods, on high flats and ridges. A large tree, up to 1.50
diam. and trunk 30m. high, ramification tortuose starting all from top of
trunk. Brown flat. Fr. like *Enterolobium*.5274. *Peperomia cylindrica* C. & G.

Piperaceae

San Felix, in ~~dry~~ woods. Epiphytic.5275. *Maxillaria tenuifolia* Lindl.

Orchidaceae

San Felix, in wood, epiphytic. Sep. pinkish, darker outside. tube pink out-
side, white inside.5276. *Amacoua corymbosa* H. B. K.

Rubiaceae

San Felix, in wood. A small tree. Fr. black.

Madroño - Madera muy fuerte y de uso frecuente.

San

5277. *Epidendrum Hamfordianum* Batem.

Orchidaceae

San Felix, on naues ~~and~~ skirts of savana. Sepals yellow inside with purple
dots & lines. Column greenish with pink tips. Wings of labellum white, terminal
lobe yellow with fringed margin. Median line purple.5278. *Ocotea veraguensis* Mez.

Lauraceae

San Felix, in woods. A mid-sized tree, often is lated and then low with
round crown.

Sigua canelo - Madera de construcción

5279. *Cordia gerascanthus* L.

Boraginaceae

San Felix, in woods. A mid-sized tree.

Laurel

- December 24, 1911
- 5280 *Miconia pteropoda* Benth. Melastomataceae San Felix, outskirts of savanas. A shrub 2-3m. high. Fl. white.
- 5281 *Cócla, cócala.* Leguminosae San Felix, very common. A shrub or treelet. Fl. white.
- 5282 *Polystachya luteola* Kth. Orchidaceae San Felix, on *Brescentia*.
- 5283 *Tobralia epiphytica* Schltr. Orchidaceae San Felix, on *Brescentia*.
- 5284 *Maxillaria crassifolia* Rehb. f. Orchidaceae San Felix, on *Brescentia*. Sepals yellow. Pet. yellow & dotted with purple. Column yellow.
- 5285 *Bulbophyllum sordidum* Lindl. Orchidaceae San Felix, on *Brescentia*. Rachis claviform.
- 5286 *Loxanthia chiriquensis* Schltr. sp. nov. Orchidaceae San Felix, on *Brescentia*. Fl. pale yellow.
- 5287 *Scaphyglottis brachiata* Lindl. Orchidaceae San Felix, on *Brescentia*. Fl. pinkish white.
- 5288 *Croton* Euphorbiaceae San Felix, outskirts of forest. Fl. white. A small tree.
Bipi

December

24 1911.

5289. *Plumiera acutifolia* (Poir.) Apocynaceae
Baracoa Blanca.

San Felix, in savanas. A small tree. Fl. snow white.

5290. ~~Pl.~~ *Eschweilera verruculosa* Pittier Lecythidaceae
Uleto

San Felix, the species most common in low wood, outside the
tide belt.

5.

December

25, 1911.

5291. *Plethradia aspera* R. & P.

Melastomaceae

Uli, in the hills above San Felix. A small tree. Fl. ♂, white.

5292. *Lisianthus Seemannii* (Griseb.) Kunth Gentianaceae

Cerro de Hato Jobo, Upper San Felix. Up to 2m. high. Common.
Fl. pale yellow. Floribundus

5293. *Oncidium cheirophorum* Rehb. f. Orchidaceae

Cerro de Hato Jobo, upper San Felix. Epiphytic. Fl. yellow.

5294. *Eupatorium solidaginoides* H. B. K. Compositae

Between

Between Hato Jobo & Cerro Vaca, in shady woods.

5295. *Viguiera sylvatica* Klatt.

Compositae

Between Hato Jobo & Cerro Vaca in clearings. Fl. white. Appa-
rently rare.

5296. *Eupatorium daleoides* (D. C.) Hemsl.

Compositae

Cerro Vaca, in shady oak-forests. A treelet, up to 6m.
high. Fl. white.

5297

December 25, 1911
Compositae

Sabana de Cerro Vaca. ^{Very} Common. Fl. white.

5298. *Canavalia villosa* Benth.

Leguminosae

Sabana de Cerro Vaca. Outskirts of forest. Common. Fl. purple pale.

5299. *Calea Pittieri* Rob. and Greenm.

Compositae

Sabana de Cerro Vaca. Very abundant. Up to 1m. Spreading like
Hypoxis in lower region. Fl. deep yellow.

Ojo!

5300. *Eupatorium laevigatum* Lam.

Compositae

Sabana de Cerro Vaca. Common. Fl. white.

5301. *Borreria tenella* (H.B.K.) E. & S.

Rubiaceae

Sabana de Cerro Vaca. Fl. white.

5302

Compositae

Sabana de Cerro Vaca. Fl. purplish white

5303. *Eupatorium pycnocephalum* Less.

Compositae

Sabana de Cerro Vaca. Fl. purple.

5304 *Tibouchina*
bipenicillata

Melastomat.
Cogn.

Sabana de Cerro Vaca. on the outskirts. A shrub, 2-3m high.
Fl. pink.

5305. *Quercus chiriquensis* Trelease
Mamecullo

Fagaceae

Cerro Vaca, forming forests. A large tree.

5306. *Tagetes microglossa* Benth.
Ruda

5307

5308. *Muhlenbergia tenella* Griseb.

5309

5310. *Machaerium Seemannii* Benth.

5311. *Cordia riparia* H. B. K.

5312. *Salvia*

5313. *Dysodia montana* A. Gray.

5314. *Jaegeria hirta* (Lag.) Less.

December 26, 1911

Compositae

Filices

Graminae

Compositae

Leguminosae

Borraginaceae

Labiatae

Compositae

Compositae

Barro Vaca, around houses. Fl. golden yellow.

Barro Vaca, on wet rocks, near the top.

Barro Vaca, in savana near the top.

Barro Vaca, outskirts of forest, near top.

Barro Vaca, outskirts of forest. A shrub.

Barro Vaca, in bushes. Fl. white.

Barro Vaca, in bushes. Lignose, 1.5-2" high. Fl. deep blue.

Barro Vaca, in bushes. Fl. orange red.

Barro Vaca, in bushes. Fl. yellow.

December 26, 1911.

5315. *Cestrum macrophyllum* Vent. Solanaceae Cerro Vaca, in forest. Cauliflorous. A small tree. Fl. purplish & yellow.
- 5316 Myrtaceae Cerro Vaca. A small tree, in bushes. Fl. white.
- 5317 Urticaceae Cerro Vaca. A shrub in cool places along quebrada.
- 5318 *Salvia hyptoides* M. & G. Labiatae Cerro Vaca, in sabanas. Fl. purple.
5319. *Pridium molle* Bertol. Myrtaceae Cerro Vaca, in sabanas. Fl. white.
5320. *Pleurothallis longissima* Lindl. Orchidaceae Cerro Vaca. Epiphytic on *Quercus*, *Byrsomima*, etc. Fl. yellow.
- 5321 Orchidaceae Cerro Vaca, on *Quercus*. Fl. greenish yellow.
5322. *Oleandra panamensis* Maxon. n. sp. Filices Cerro Vaca, in oak forest; forming large colonies.
5323. *Cissampelos pareira* L. & *Haenkeana* Benth. Menispermaceae Cerro Vaca, in shady bushes. A vine.

December 6, 1911.

5324. *Piper geniculatum* Sw., forma d C. DC. Piperaceae

Cerro Vaca, in shady forest. A treelet.

5325. *Paspalum Beckii*

Graminae

Cerro Vaca in savanas.

5326

Filices

Cerro Vaca, in forest.

5327

Amarantaceae

Cerro Vaca, in bushes.

5328

~~Convolvulaceae~~
Convolvulaceae

Cerro Vaca, outskirts of savanas. A small tree. Fl. white.

5329

Filices

Cerro Vaca, in oak woods.

5330. *Chaetochlamys panamensis* Lindau

Acanthaceae

Cerro Vaca, in woods & shady bushes. Fl. purple.

5331. *Lasiacis swartziana* Hitchc.

Graminae

Cerro Vaca in woods.

5332. *Palicourea lanceolata* Arist. Lythraceae

Cerro Vaca, in woods.

53

53

53

53

53

53

53

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53

54284⁽⁵⁾

